NATURE STUDIES

BIRDS

BY

CHESTER A. REED

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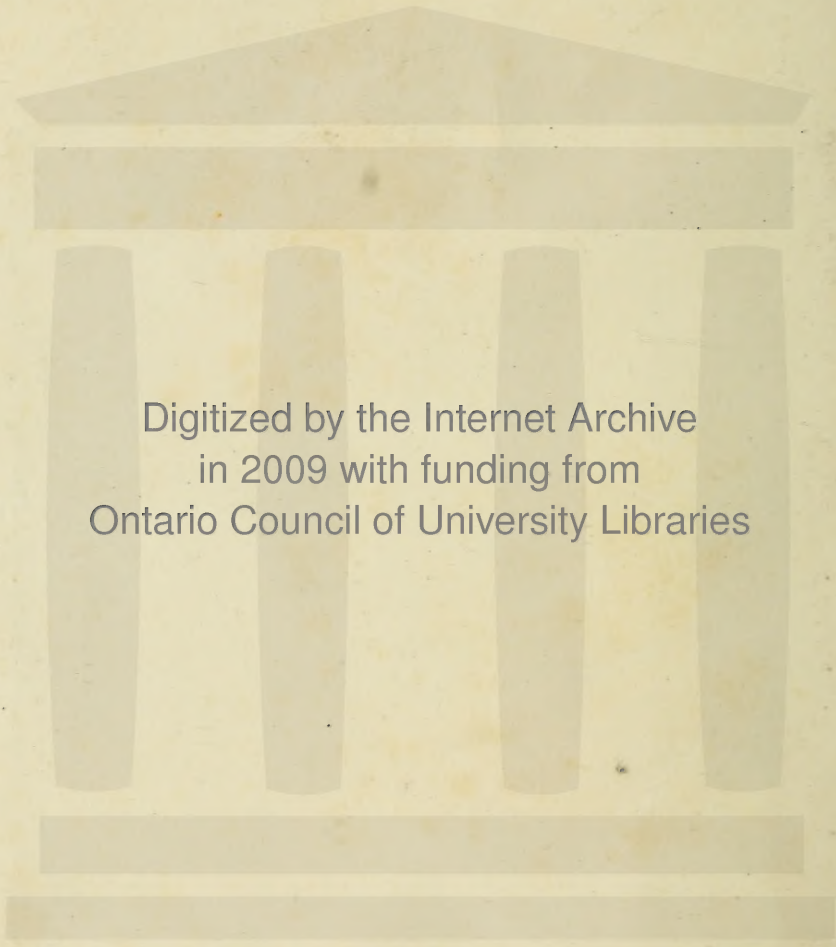
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Chipping Sparrow

NATURE STUDY
BIRDS

BY

CHESTER A. REED, B. S.

Author of "Land Birds," "Water Birds,"
"North American Birds' Eggs," "Flower Guide," etc.

Curator in Ornithology,
Worcester Museum of Natural History.

A Book for Beginners in Bird Study

Forty Illustrations in Colors

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INTRODUCTION

This book is prepared for the large number of wide-awake boys and girls who are interested in the study and observation of our wild birds. It will be of the greatest assistance to novices, those just entering the field of ornithology, as the study of birds is called. I am quite sure that those already well versed in bird lore will find the many facts worked into the bird stories to be of interest and value to them.

It may be of interest to note that every occurrence or incident relating to bird life is based on actual facts and not imagination.

The book is divided into two parts, the first containing many facts concerning bird life in general,—facts which everyone should know as a matter of information and facts that every student of birds must know before he or she can make satisfactory progress. The second part contains bird stories as related to Dorothy and Dick by their "Uncle George." The forty birds illustrated and talked about represent practically all the families of birds anyone except the professional naturalist is apt to find.

These bird stories will make entertaining reading for children in their homes and will be used in the school for

general reading and as a basis for composition work. For this purpose, all the little colored bird pictures have been printed separately and may be secured at book stores or of the publisher at the rate of a penny each,—in lots of ten or more, assorted or alike, as wished. Many uses for these little pictures will suggest themselves: Composition work, scrap books, postcard albums, grouped and framed as pictures for the home or school room, to enclose in letters to birdloving friends, etc.

The index in the back of the book contains not only the names of the birds included in its pages, but additional data in regard to their ranges, etc.

BIRD LORE

Part I.

All birds have feathers and no animals, other than birds, do wear feathers. Birds are more closely related to lizards than to any others of the animal family, in fact their structure is quite lizard-like in many respects. It has been proved quite conclusively that birds and lizards, in prehistoric times, had a common ancestor.

Birds have been classified and grouped into "Orders" according to the degree of refinement in their structures. The lower order among our North American birds is made up of the grebes and loons, while the highest development is attained in the thrushes.

With the exception of a few kinds of birds that show bare skin on parts of the head, birds are covered with feathers. Feathers do not, however, grow uniformly over the body; as a rule they are in tracts or patches with large bare spaces between. We do not see these bare spaces on living birds because the feathers on both sides lap over and cover them.

Feathers are very poor conductors of heat or cold; they make perfect clothes for birds either in winter or summer.

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If the weather is very cold, birds simply fluff their feathers out and the cushion of air underneath makes them a much thicker and warmer coat. You can readily see this in the puffy appearance of the household canary when it is cold.

CHANGING THEIR CLOTHES.—All birds get new feathers at least once a year, and some twice a year. This changing of feathers is called moulting. Since they cannot change their clothing at will, birds have to be careful to keep their feathers clean and in good condition. Most of them are very neat and spend a great deal of time in picking over and preening the feathers.

Most all birds have tiny oil glands at the base of the tail; in the case of water birds these glands are quite large. They get small quantities of an oily liquid from these, with which to dress their feathers; this renders the close-fitting plumage of ducks and other swimming birds impervious to water.

As I have said, all healthy birds moult at least once a year, usually just after the nesting season. During this first moult practically all the feathers are changed, sometimes so many of them being lost at once that the bird is unable to fly; this commonly happens in the case of ducks and other swimming birds. Birds that moult twice a year go through the second operation early in spring; this second moult is not as complete a one as the regular summer moult; the feathers are lost and replaced gradually, but

often startling changes occur in the resulting plumage, such as plumes or ornaments on certain male birds.

During the summer moult, the males of a great many species, especially if they are bright colored and very differently plumaged from the females, assume the dull-colored dress of their mates. Of course in the spring moult their bright colors are assumed again; tanagers, bobolinks and many of the ducks well illustrate these changes.

There is another method of changing the plumage in spring, that takes place without moulting. It is caused by the wearing or falling away of the outer edges of some of the feathers, exposing some other color underneath. This is well illustrated in the cases of the Snow Bunting and some of the longspurs. The former loses all of the brown that shows on the tips of the feathers in winter and also all of the white edging to the feathers on the back, so that its back is jet black and the rest of the plumage almost spotless white, —this change being accomplished without the loss of any feathers.

All young birds are born covered with down, but those that remain in the nest for a short period have so little of it that they often appear to be entirely naked. This down is rapidly replaced by feathers, those of the wings and tail growing most rapidly. The following rule will, in most cases, apply to the first plumages of young birds of various species, but of course it has its exceptions: if the plumages

of the parent birds are very different, the male being the brighter, the first plumage of their young will probably resemble that of the mother; if the parents are similar in plumage, that of the young will probably be different from either. The first case is shown by tanagers, orioles, goldfinches, etc., and the second by bluebirds, robins, Chipping Sparrows, etc., the young of which have spotted breasts while those of the parents are plain.

Some birds get their full adult plumage the first spring after birth while others do not attain full plumage for two or even three years. A good example of this is shown by the Orchard Oriole. During the first fall, the young male resembles his mother; in the second year he has the coloring of the female but has in addition a large black patch on the throat; in the third year he attains the perfect black and chestnut plumage of the adult male.

With every family of our birds except one, when there is difference in plumage between the sexes, the male is the more beautifully clothed. The exception is in the case of Phalaropes. The females of this family of shore birds are more brilliantly plumaged than the males and furthermore they do all the courtship,—a complete reversal of the manners of other birds. While Mrs. Phalarope lays the eggs in the nest, it is the male bird that has to attend to the duties of incubation.

MIGRATION.—Birds inhabit nearly every portion of

the earth: In the tropics, where the temperature is always very warm, we find great numbers of many kinds of birds. In the North, far beyond the limit of trees, we still find birds in large numbers, during the summer, but of fewer kinds. Wherever food can be obtained, birds will be found.

Growth takes place very rapidly in the Arctic regions; for a brief period all exposed land abounds in insect life and vegetation, then it as rapidly disappears. As the food supply decreases and the weather becomes colder, most of the birds have to move southward.

The moving southward of birds in fall and northward in spring is called migration. It is a kind of migration when a man and his family regularly move to their country home in summer and to the city in winter; only, with the birds, it is a necessary migration and has become an instinctive habit so that, at a certain time each year, flocks of the same kinds of birds gather together ready to start their journey.

Some birds like cold weather and others do not; some make long migrations and others short ones. The tiny hummingbird flies twice a year, between here and Central America, and some of them from as far north as Labrador,—about three thousand miles, an almost incredible distance for such tiny birds to travel. The Golden Plover travels from the west coast of Hudson Bay to Brazil and even to Patagonia, a distance of fully eight thousand miles, twice a year.

On the other hand, some of the birds such as grouse and

some owls may migrate but a few miles or may stay in the same locality all the time. Chickadees may be found in the northern states at all times, but the ones that are here in winter are those that have come from farther north while those that were here in summer have migrated to localities a little farther south.

One of the best methods of studying birds is the keeping of migration records, that is dates of the first arrival of each species in spring and of their departure in fall. This gets anyone out of doors each morning and keeps one "on the jump" trying to find new kinds of birds. But, whatever you do, do not let your imagination run away with you. I often have persons describe birds they have seen,—birds that never lived in this nor any other country, yet they believed they saw such birds. Should you see one you do not recognize, look him over very, very carefully; move about so as to see him from another position; remember that the shadow of a branch may cause the throat of a bird to appear black, even though it is really white.

FLIGHT.—A very interesting field of observation is that of bird flight,—the manner of flying and the speed that different species are capable of. It is a field that has hardly been touched and offers many problems for the boys and girls to solve. We used to read of birds flying at the rate of a hundred miles an hour or more, but as a matter of fact no living bird ever reached anywhere near that speed. Pos-

sibly some of the ducks may spurt for a very short distance at the rate of seventy miles per hour. It is quite evident that the average ordinary rate of flight of all birds, large and small will not exceed twenty miles an hour.

When traveling it is very interesting to compare the speed of birds going in the same direction with that of the train.

Nearly every bird has some peculiarity in its flight or in the shape of its wings that will identify it easily at a distance to the trained naturalist. It is a pleasure and should be the aim of every boy and girl to be able to know most of the birds in this way.

The high-speed camera has been of great value in showing many features of the flight of the larger birds, such as the extent to which the wings are raised and how far they are carried down at each stroke. It also shows that when in full flight, the primaries, or long outer wing feathers, are widely separated.

You know how fast the wings of a hummingbird buzz,—so rapidly as to be just a blur to the eye. The modern camera shutter will take a picture in the remarkably short space of time of one thousandth part of a second; yet it has been proved that even when taken as quickly as this, the wings of a flying hummingbird still show as a blur in the picture.

PLUMAGE AND COLOR PROTECTION.—As a rule most birds are colored, or have their markings so arranged as to harmonize with their chosen surroundings. Most birds that

live or spend the greater part of their time on the ground are some shade of brown, usually either streaked or barred.

Even though the male bird is gaudily dressed, his mate is often clad in brown or some dull color so she is not at all conspicuous when sitting upon her nest, whether it be in a tree or on the ground. Even bright colored birds that frequent green trees do not show up as plainly as one would think; the sunlight filtering through the leaves makes spots of many colors and shades and you hardly notice the addition of another bright spot in the shape of a bird. This would be particularly true if we were in the position of hawks sailing over the tops of the trees.

One of the very best examples of color protection is shown by the Whip-poor-will. His plumage matches the coloring of dead leaves and sticks perfectly. I have made several photographs of these birds on their nests and although the picture may be perfectly sharp, it is quite difficult to make out the form of the bird.

NEST BUILDING.

Perhaps the most interesting feature of bird life is the nest building. The various families of birds build their homes so differently and some of them display so much skill that we have to admire them. Many different trades are represented in the making of homes of some of our common birds.

MASONS.—Robins, Phoebes, Barn and Cliff Swallows are among the most skilful masons; the flask-like nest that the Cliff Swallow sometimes makes is a wonderful piece of work for a bird to do. In the West, colonies of them attach their nests to the faces of cliffs, but in the East they are perhaps better known as Eave Swallows, because they attach their nests on the outside of buildings, under the eaves. Bit by bit, pieces of mud are cemented in place until a globe-shaped vessel is formed; the entrance to this is through a neck or hole in the side.

CARPENTERS.—All the woodpeckers may be classed as carpenters, because they bore or hammer into trees to make their houses. Nuthatches, chickadees and several other birds make their homes in trees but it is necessary that the wood be decayed so they can pick out a cavity; woodpeckers can bore their way into living wood with their chisel-like bills. The large Pileated Woodpecker sometimes chisels holes twenty or even thirty inches in depth in solid wood.

TAILORS.—A great many of the birds weave pretty and strong nests but for skill as tailors none of our birds can compare with the members of the oriole family. The long, pouch-shaped nest of the Baltimore Oriole is so well made that we often see nests, two or three years old, swinging from the outer branches of elm trees. If you have never

seen orioles building their nest, it will be well worth your while to watch them. Both birds engage in the work, the female of course doing the greater share. When the nest is most completed, you may often see both birds working industriously at the same time, the female on the inside and the male hanging to the outside. Some children have fun placing colored yarn where the orioles will get it and weave it into their homes; oftimes very peculiar effects in color are made.

BASKET-MAKERS.—Many birds weave their nests in the form of baskets, but the best examples of this kind of work are shown by the vireos. Their nests are made of grasses and strips of bark firmly woven in the form of little baskets, and suspended by the rims from forked branches. Often they work bits of newspaper into the outside, too.

CURIOUS NESTS.—The majority of birds build conventional nests and, as a rule, members of the same family build nests similar in character. Grebes gather decaying rushes, form them into piles on the water and on these wet, floating masses lay their eggs. Auks lay their single eggs on bare ledges of rock; these eggs are usually large and round at one end and quite pointed at the other so that, if they are moved, they will roll around in a circle instead of rolling off the ledge.

The tiny California Bush-tit, scarcely bigger than our hummingbird, makes a purse-shaped nest, sometimes as long as fourteen inches; this is quite slender at the top, where there is an opening in the side, and larger at the bottom, making a little room for the eggs and little birdies.

The Dipper or Water Ouzel, a short-tailed, gray bird about the size of a bluebird, found in the Rocky Mountains, makes a round nest of moss; this is placed under overhanging banks along streams and often is under rocks where the bird has to dive through a waterfall to get to it.

Our Parula Warbler makes a dainty nest and one that is quite difficult to find. Many decaying cedar swamps have quantities of long, drooping moss hanging from the branches. The little warbler turns up and weaves together the ends of these, forming a little pocket that is lined with fine grasses or hair, and makes a soft and safe bed for the eggs and young.

The Scott Oriole found on our Mexican border sews its purse-shaped nest to the under side of palm leaves.

The Chimney Swift glues sticks to the inner walls of chimneys so as to make a frail platform for its white eggs.

Eggs of birds of different families differ as greatly as the homes they are laid in. They range in size from that of the hummingbird, about the size of an ordinary bean, to that of the California Vulture, measuring four and a half inches long. In color they vary from the pure glossy white of

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woodpecker eggs to the deep greenish-blue of those of the Catbird; to those of Ptarmigan, so heavily blotched with blackish-brown as to appear almost black; and to those of the Duck Hawk, often so plentifully sprinkled with brown as to appear almost uniform in color.

BIRD STUDIES.

Part II.

The subjects for the forty stories on the following pages have been chosen so as to represent all the common bird families, with a view to giving the reader a general idea about the habits of the birds of each family.

For school use we have all of these little bird pictures printed separately on small paper with no text except the name of the bird. These may be used for composition work or may be grouped artistically for framing. They can be secured for a penny each at bookstores or will be mailed by Chas K. Reed, Worcester, Mass. They may be assorted as you wish but must be ordered not less than ten at a time.

From "Land Birds"

BLUEBIRD

"Uncle George!" called Dick, "come out here, I want to show you something."

Following the sound of his voice, I soon found him perched, boy-fashion, astride a limb, in one of the apple trees.

"See! A Bluebird has made a nest in this hole, and there are five of the cutest blue eggs in it. Jimmie wanted to take one of them, but I wouldn't let him."

"That's right, Dick! If Jimmie had taken one of them, the mother bird would probably have deserted the nest. Never disturb the nest of a bird, nor allow your companions to, if you can prevent it."

"There's the male bird now!" exclaimed Dick, "isn't he a beauty! See how his back glistens in the sun,—brighter than the bluest sky. And there's Mrs. Bluebird too, in the next tree. They are not a bit afraid of me for they know I would not harm them. I watched them building the nest; she kept bringing dead grasses and carrying them in, but he did not offer to help her,—just followed her about, singing, while she did the work. Today, though, I saw him

bring a green worm and take it to her while she was sitting on the eggs, so I guess he is not such a bad fellow after all."

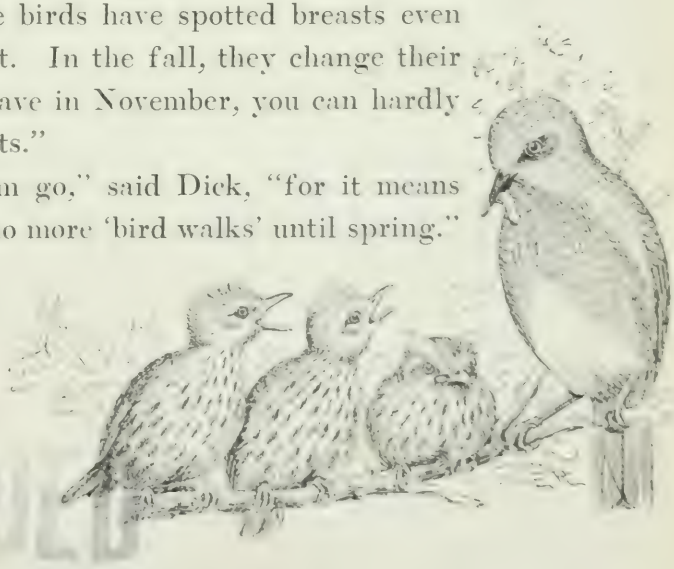
"That is the way with the bird world, Dick; the male birds wear fine clothes and, perhaps, sing beautiful songs, while their plainly clad mates are busy with household duties. Still, when the little birdies appear, you will find that yon brilliantly garbed chevalier will do his best to supply them with the many, many insects they require."

When, two weeks later, five, lusty, clamoring little birds filled the nest, Dick found that both parents were very busy indeed supplying their needs.

One day Dick, and his sister Dorothy, who had been daily watching the growth of the little Bluebirds, rushed into the room crying in concert—"Uncle George! They have left the nest and the mother is teaching them to fly; and," added Dorothy, "they are the dearest things and they all have speckled breasts."

"Yes, children! Bluebirds belong to the Thrush family, and the young of all these birds have spotted breasts even though their parents do not. In the fall, they change their dress so that, when they leave in November, you can hardly tell them from their parents."

"I don't like to see them go," said Dick, "for it means 'good-bye to summer' and no more 'bird walks' until spring."



From "Land Birds"

CHICKADEE

"Chickadee-dee-dee," the sound came faintly to us from the far end of the orchard; but Dick's alert ears instantly caught it.

"There is a Chickadee! No,—two of them in the last apple tree," called the boy.

"I like Chickadees," ventured Dorothy, "they are such dainty, tiny, feathered mites; always happy and very busy,—besides they stay with us all winter and Dick and I have such fun watching them eat the suet and nuts we put out for them."

"Sometimes they come right on the window sill. But, uncle, how can they keep warm on very cold winter nights without any houses to shelter them?"

"Oh, Dorothy, but they do have their houses; not big ones like yours to live in, year in and year out, but every little crevice or niche under boulders or overhanging banks, every hole in decayed stumps or trees, even the dense foliage of pines and cedars furnishes cozy little retreats where they can spend the night in comfort. Our winter birds suffer real hardship only when ice storms cover everything with

a hard coating so they cannot get at the insect eggs and larvae that they require for food.

"Perhaps we can find a Chickadee nest some day. Did you ever see one, Dick?"

"No, Uncle George, but I have hunted everywhere to find one, when I knew it was very near."

"Perhaps, Dick, you did not look in the right place."

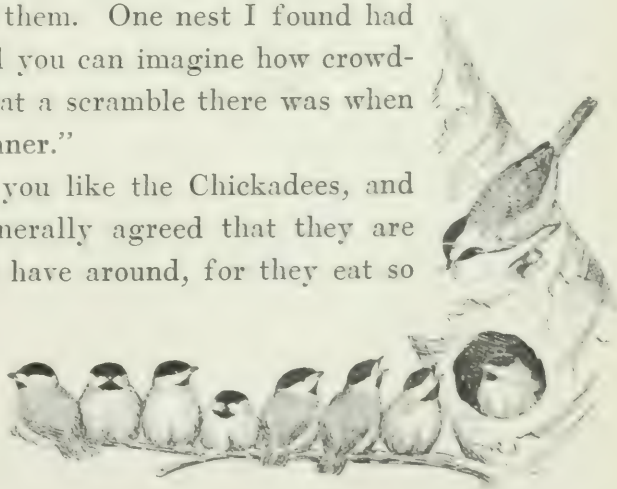
"But I looked everywhere,—on the ground, in the bushes and in the trees."

"What kind of trees were they, Dick?"

"Why, most of them were birches, I think."

"I thought so. You may not have noticed it, but probably one of those birches was decayed,—perhaps just a stump left; near the top of that stump you might have found a little round hole; if you had looked inside you might have seen the eggs on a very soft bed of quilted plant fibres and feathers;—beautiful little eggs,—pinkish-white with tiny reddish-brown specks all over them. One nest I found had ten eggs; they all hatched and you can imagine how crowded the little home was and what a scramble there was when mother brought them their dinner."

"I am glad, children, that you like the Chickadees, and feed them winters. It is generally agreed that they are very, very good little birds to have around, for they eat so very many bad little insects."



From "Land Birds"

NUTHATCH

"Sometimes Nuthatches would come to our lunch counter, too;" said Dorothy; "they are such droll creatures and have such a queer way of climbing about upside down; even their voices are funny,—about half way between the sound of a penny horn and the weak quacking of a duck."

"Do either of you know why the Nuthatch is so often seen 'upside down' as Dorothy calls it?"

"No, why is it?" came eagerly from both children in unison.

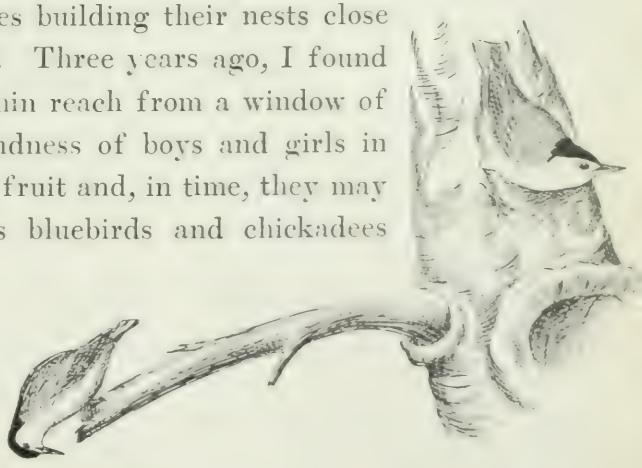
"Well, his acrobatic feats are caused by his fondness for insect eggs, larvae and beetles that are found only in the crevices or under the bark of trees. The Nuthatch has no stiff tail feathers to help support him as woodpeckers have, so it would be very difficult for him to climb upward. Many birds simply cling to the bark of a tree while they gather a few morsels that happen to be within reach, but Sir Nuthatch was, perhaps, wiser than they for he found that by spreading his feet wide apart,

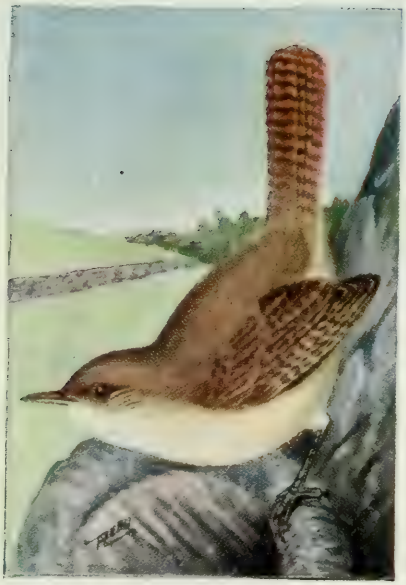
one under his breast and the other reaching backward and grasping the bark, he could quite easily progress downward or around a tree, with a sort of 'hitching' motion.

"This inverted position often aids the little fellow, too, in prying up the bark to get insects or eggs that are concealed underneath, for his weight being above the lever (his bill) assists him just as a man's weight often helps in prying with a crowbar."

"Do Nuthatches make their homes in holes of trees, the same as chickadees do," asked Dick.

"They do, but they love the big woods so that is where most of them make their homes, usually high up in oak or chestnut trees. They seem to be gradually changing their haunts, as birds sometimes do, for in the last few years numerous instances of nuthatches building their nests close to dwellings have been reported. Three years ago, I found one in a decayed apple tree within reach from a window of a farm house. Perhaps the kindness of boys and girls in feeding them winters is bearing fruit and, in time, they may become as friendly with us as bluebirds and chickadees are."





From "Land Birds"

HOUSE WREN

"Come, children, we will go down toward the brook for our 'bird walk' this afternoon. I was down there this morning while Dick was playing with his friend Jimmie, and I have found a surprise for both of you."

"Oh, Uncle George, what is it?" "Wait a moment; do not get impatient. There,—we will get over the wall now and see what is in this little apple tree."

A few moments later and Dick and Dorothy were peering into the end of a hollow, broken-off limb just on a level with their eyes.

Their surprise and gratification was immediately shown by the volley of "Oh's" and other exclamations that rang out.

"Aren't they lovely? One-two-three-four-five-six-seven, —seven of them, but who do they belong to?" exclaimed Dorothy.

"I know," shouted the excited boy, "It is the House Wren. There is a picture of one in my 'Bird Guide' just about to go in a hole in an apple tree, almost exactly like

this one. And I remember that it says the eggs are all covered with pinkish-brown dots."

"You are right, Dick, it is the home of a pair of House Wrens. Let us go back to the wall and watch for them to return."

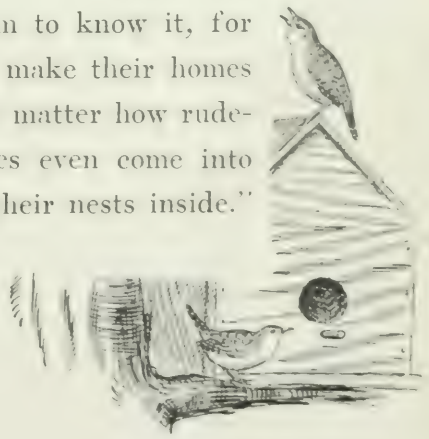
In a few minutes a little brown bird came speeding across the field to the tree, stopped just an instant in view, then dove in the opening and settled on her treasures.

An instant later, another little brown bird appeared, the exact counterpart of the first one. He perched on a twig where he could see into the nest, lifted his head, swelled out his throat and poured forth his song,—the sweetest, most rollicking, rippling, soul-stirring melody of any wild bird.

"Isn't it beautiful," exclaimed Dorothy, "I never knew a bird could sing like that."

"All the Wrens have loud songs, Dorothy, but none of the others can sing as sweetly as this kind."

"Everyone likes Wrens, and they seem to know it, for they show little fear of man and like to make their homes in little houses that are built for them, no matter how rudely they are constructed. They sometimes even come into houses through open windows and make their nests inside."



From "Land Birds"

CATBIRD

"We will follow this wall down past the thicket and, if I am not mistaken, I think we will find another nest,—one not inside a tree this time."

"I wonder what it will be," said Dorothy.

As if to answer her, a dark gray bird nearly the size of a Robin, came from the heart of the thicket and, perched on the top of a dead thorn branch, sang a medley of notes, some his own and others imitating those of other birds; as a fitting end to his song he added a cat-like "meouw."

Oh, it's a Catbird!" exclaimed Dorothy.

"Let us see who can first find its nest," added Dick, following his suggestion by plunging into the thicket.

Catbirds are very brave and also very noisy in the defense of their homes. Not knowing that we would do them no harm, both birds fluttered about giving harsh calls and meouws.

"Oh, Dick, come here!" called Dorothy. "I am sure this is a nest but the briers are so sharp I cannot get to it."

Sure enough, it was the nest that our gray friends were so

anxious about. It was quite large and strongly made of fine black rootlets, a few larger twigs and many strips of grapevine bark.

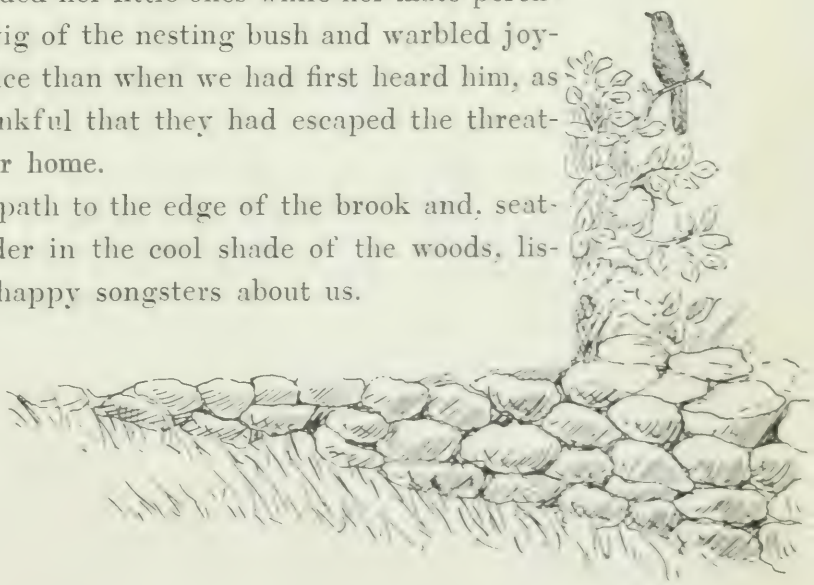
"No wonder they were so anxious," said Dick, after wading through the tangle of blackberry vines and reaching the nest, "for there are four little Catbirds here, only about two days old,—queer little things all covered with black pinfeathers."

Touched by the actions of the parent birds, with their scolding and dashing at the boy in their distress, little Dorothy suddenly exclaimed:

"Oh, Uncle George! Let us go away and leave poor 'Kitty-bird' alone with her babies."

Elated at seeing us depart, mother Catbird at once went to her nest and brooded her little ones while her mate perched on the highest twig of the nesting bush and warbled joyously, in a lower voice than when we had first heard him, as though he were thankful that they had escaped the threatened danger to their home.

We followed the path to the edge of the brook and, seated on a large boulder in the cool shade of the woods, listened to the many happy songsters about us.



From "Land Birds"

REDSTART

Warblers were flitting about everywhere. The Maryland Yellow-throat was the most noisy; from his perch on the top of an alder he would sing his "wichery-wichery-wichery," then with a sputtering alarm note, sounding like a watchman's rattle, he would dash into the thicket; a moment later we would hear him scolding and see him peering at us from among the leaves, his little black eyes twinkling in the jet black mask of his face. "Ah!" cried Dick as a small black and orange bird dashed out into the air and snapped up a small moth, "There is a Redstart. I think they are the prettiest and best of all the warblers. See how lively he is,—his wings fluttering all the time and his tail opening and shutting just like a fan. I think he knows he is beautiful and wants us to notice him."

"You are right, Dick, the Redstart is the best of the warblers. Nearly all of them are beautiful and they are all very useful too, but Sir Redstart does the most good of them all. He catches a greater variety of insects than any of the others, getting them from the ground, the bark of

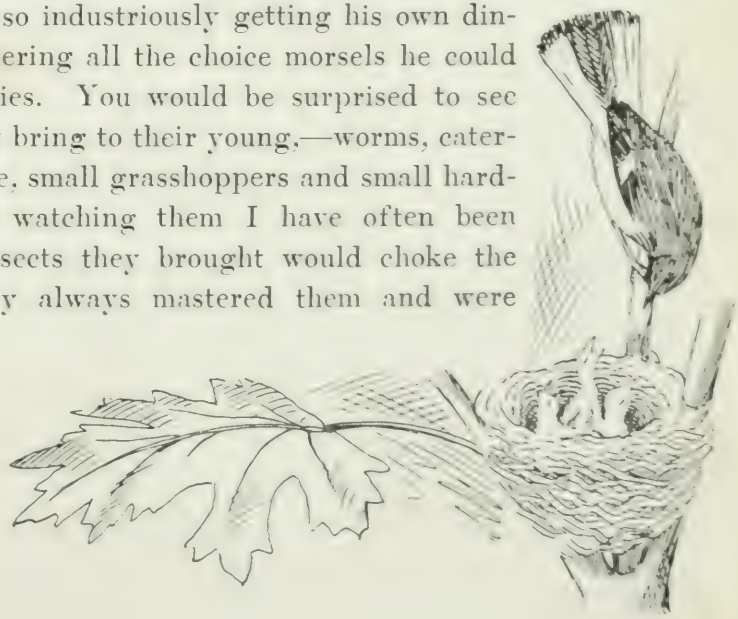
the trees, from the leaves or, as we have just seen, catching them in mid air.

"You will notice if you get close enough to him that his bill is broad and flat at its base, very much like the bills of flycatchers, and his mouth is surrounded by bristles like those of most birds that have the habit of catching their food while on the wing."

"I wonder where his mate is?" asked Dorothy.

"Well, as he does not go very far away from here, I suspect that she is in one of the nearby trees; probably with just her head and tail in sight above the edge of a handsome little nest. It is almost useless to look for the nest though, unless you can see her and watch her go to it. It is just a little cup of softly quilted, gray, plant fibres, safely and firmly bound in the crotch of some small tree.

"Probably they have eggs in their nest; otherwise Mr. Redstart would not be so industriously getting his own dinner, but would be gathering all the choice morsels he could find for his little birdies. You would be surprised to see some of the things they bring to their young,—worms, caterpillars, gnats, plant lice, small grasshoppers and small hard-shelled beetles; when watching them I have often been afraid some of the insects they brought would choke the little fellows, but they always mastered them and were soon calling for more.



From "Land Birds"

BLACK-THROATED GREEN WARBLER

"Well, Dorothy, have you rested long enough?"

"Yes, Uncle George. Where will we go now?"

"A few moments ago, I heard a bird that you will be interested in, singing in that little clump of pines over there."

"Oh, Uncle George, how is it that you can always recognize the songs of all the birds when so many are singing at once?"

"It is all in practice, Dick. The well trained naturalist could, if led through the woods blindfolded, name nearly every bird that called, chipped or sung."

By this time we were under the pines and the song was plainly heard by both children.

"There! It is singing again. It sounds like 'zwee-zwee-zu-zee': I wonder what it can be," said Dorothy.

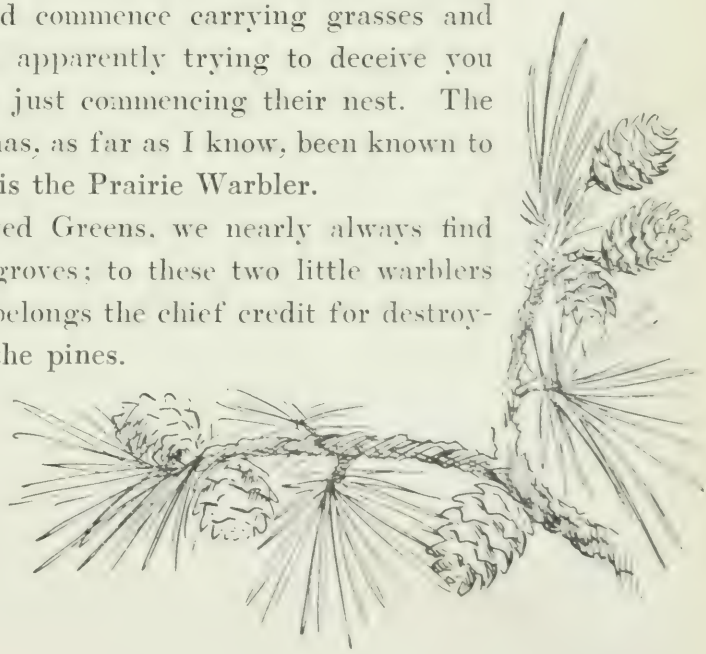
"Look sharp and you will soon see him. Notice how well his song fits with the sound of the wind in the tree-tops; some birdlovers have likened his song to the words 'Trees, trees, murmuring trees'. Do you not think it sounds something like it."

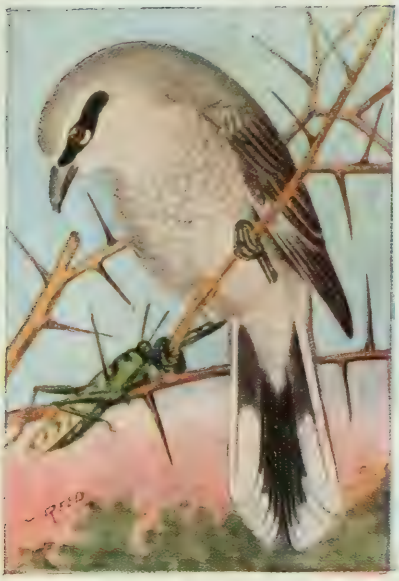
"Yes," said Dick. "I see him! It is a little bird and he has a black throat,—and yellow face,—and white on his wings. I do not think I ever saw one before. What is it, Uncle George?"

"It is the Black-throated Green Warbler. It is rather a long clumsy name for so small a bird, but it describes him pretty well, for his back is quite greenish. In summer you seldom find them far from pine groves, but during their migrations, you may very often see them with other warblers.

"It is very hard to find their little nests,—cunningly concealed in tufts of pine needles near the tops of the trees. The birds are quite clever too, for it has often been observed that, when they thought there was danger of their nest being found, they would commence carrying grasses and rootlets to another tree, apparently trying to deceive you into thinking they were just commencing their nest. The only other warbler that has, as far as I know, been known to mislead one in this way is the Prairie Warbler.

"Besides Black-throated Greens, we nearly always find Pine Warblers in pine groves; to these two little warblers and the tiny Chickadee belongs the chief credit for destroying insects that ravage the pines.





From "Land Birds"

SHRIKE

"Right in that dead tree beyond the last pine, we saw a Shrike, last spring, didn't we Dorothy?"

"Yes, Dick; and do you remember how loudly he whistled? We did not know what it was at first,—until we found his picture in our 'Bird Guide.'"

"Did you ever see a Shrike catch a bird, Uncle George?"

"Yes, Dick, I have often seen them catch English Sparrows. They hunt in two different ways:—Sometimes they sit on a lookout perch in the open, and pursue and strike down passing little birds; or they may conceal themselves in vines or bushes and pounce upon prey that comes within their reach.

"Shrikes are not nearly as destructive birds as they are often called. Indeed they sometimes are quite useful. They destroy a great many grasshoppers and other large insects and also kill a great many field mice. When they can get insects or mice, they rarely touch little birds.

"Their beaks are very sharp and hooked, but their feet are like those of a Robin,—not strong enough to hold their

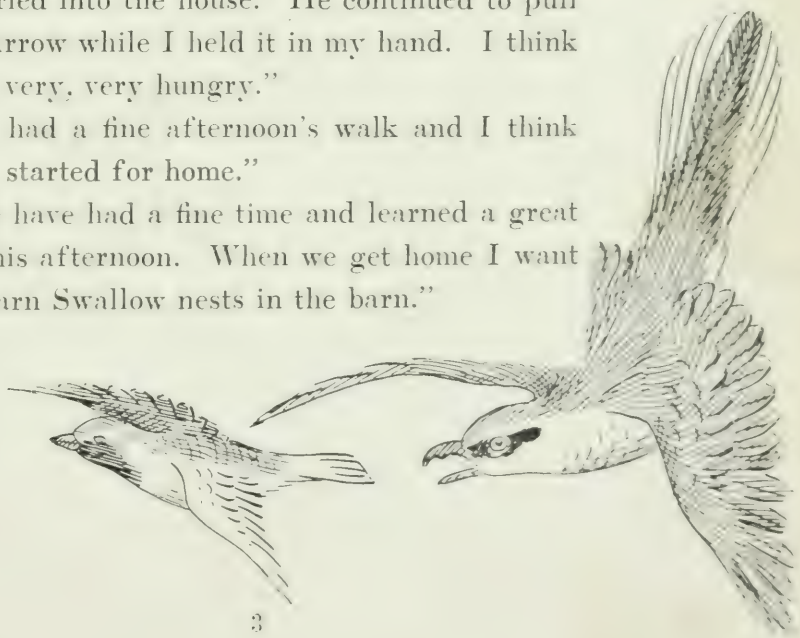
prey firmly while they tear it to pieces. It is for this reason that they have to impale birds, mice or insects on thorns, the barbs of wire fences or hang them in forked branches.

"When a Shrike is in a hunting mood, he often kills a great deal more than he can eat; that is why we sometimes see mice or little birds hung up but untouched.

"When they are hungry. Shrikes are very, very bold. They have been known to dash into windows and try to seize canaries from between the wires of their cages. Once I saw one pounce upon an English Sparrow in the street; the sparrow was killed at the first blow, but the shrike did not let go of his hold even when he and his prey were both picked up and carried into the house. He continued to pull and tear at the sparrow while I held it in my hand. I think he must have been very, very hungry."

"Well, we have had a fine afternoon's walk and I think it is about time we started for home."

"Yes, Uncle, we have had a fine time and learned a great deal about birds this afternoon. When we get home I want to show you the Barn Swallow nests in the barn."



From "Land Birds"

BARN SWALLOW

"There are some of the swallows flying about now," said Dick as soon as we came within sight of the barn. "See, one of the window panes in the gable is taken out every spring so that they will always be able to get in."

The barn was a large one with double lofts, although of course, they were nearly empty at this time (in June.) Dick led the way up two ladders and then proudly pointed out three Barn Swallow nests that were in use and several old ones.

"Two days ago, that nest over the top of the window had five eggs in it; the one on the third rafter had four little birds and this one had only one egg.

"See that rope that hangs between those two rafters? The swallows use that for a resting place. Nearly always there are one or two of them sitting side by side on it. See, Uncle! Here comes one of them in through the door now. He has a large gnat in his bill. Yes,—he is going to the nest with the little ones."

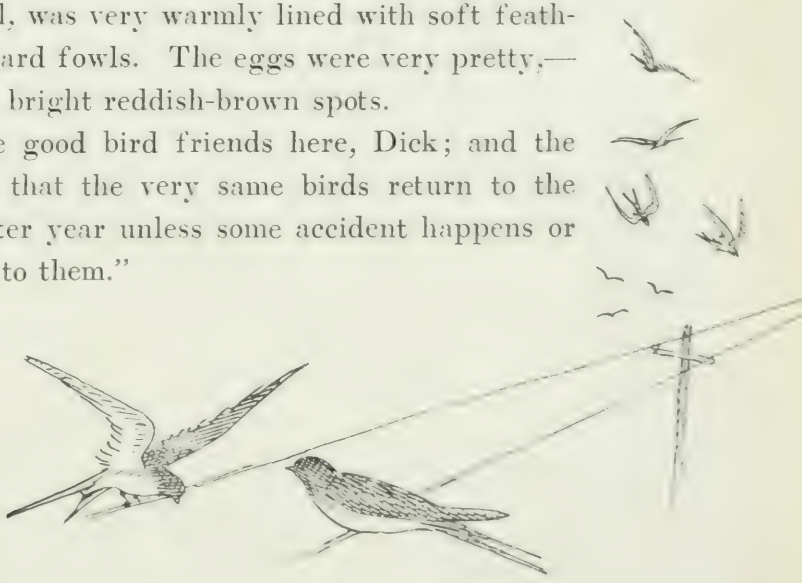
Hanging upright on the side of the nest, the Swallow

rapidly gave each of his little ones a morsel, for, besides the insect that was in sight in his bill, he had several others securely packed in his mouth. It was a very pretty sight to see the little ones waving their wings in their eagerness to be fed.

The ease and grace of a swallow's flight was well shown by this bird, when he fell backwards from the edge of the nest, caught himself on out-stretched wings and slid down the air out through the barn door without any flapping.

Nothing would satisfy Dick until I climbed up the little ladder he kept there for the purpose, and looked at the nest containing the five eggs. It was a well-built swallow nest, made of mud and fine straws, the outside being decorated with little round pellets of mud so that it was very rough; the inside, as usual, was very warmly lined with soft feathers from the barnyard fowls. The eggs were very pretty,—creamy-white with bright reddish-brown spots.

"You have some good bird friends here, Dick; and the best part of it is that the very same birds return to the same spot year after year unless some accident happens or someone is unkind to them."



From "Land Birds"

SCARLET TANAGER

"Well, children, which way shall we go this fine morning?"

"I would like to go up in the big woods," said Dick; "I have only been there once this year."

"All right, it is the big woods for this morning. We have about four hours before noon. In that time we ought to find several interesting things."

It was an open piece of woods chiefly of oaks but with a few chestnuts and pine trees scattered about. Dick was determined to do his best and had both eyes and ears wide open for bird life. He was delighted by finding a nest of the Song Sparrow, carefully hidden in a tuft of grass, and also one of the Field Sparrow in a clump of weeds;—both of these while we were crossing the field on our way to the woods.

From all parts of the woods came the loudly-chanted song of the Oven-bird, often known as the "Teacher-bird" because his song sounds like "Teacher-teacher-teacher," repeated from three to ten times.

The song that interested the children most was that of the Veery, or Wilson Thrush, a musical, descending roll with a hollow sound, as Dick said "It sounds as though he was singing through a piece of drain pipe.

"There, children, listen! I hear the song I have been expecting."

"What is it, Uncle George? It sounds to me like a very hoarse Robin," said Dick.

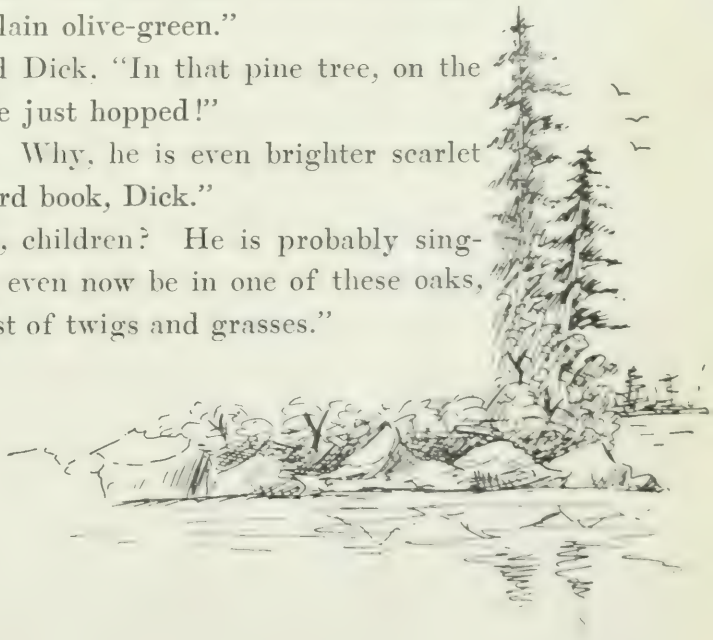
"It does sound something like what you say, Dick, but it is the song of the most brightly colored bird found in the Northern States."

"I know! It must be the Scarlet Tanager," exclaimed Dorothy." You know, Dick, he is the very brightest of red with black wings and tail,—and his mate is so differently dressed from him, just plain olive-green."

"I see him!" exclaimed Dick. "In that pine tree, on the third branch. There,—he just hopped!"

"Oh! Isn't he bright. Why, he is even brighter scarlet than the picture in our bird book, Dick."

"See how happy he is, children? He is probably singing to his mate who may even now be in one of these oaks, perhaps sitting on her nest of twigs and grasses."



From "Land Birds"

TOWHEE

Dick was moving about trying to get a better view of the Tanager that had just flown to the top of the pine, when a scramble among the leaves at his feet caused him to look down quickly, just in time to see a brown and white bird run limping away, trailing its wings on the ground.

"Oh! Uncle George, come here quick! Here is a female Towhee and I am afraid I have stepped on her; she seems to be hurt."

"The poor little thing," mourned Dorothy. "How did you happen to do it Dick?"

But Dick did not reply for he was looking at his uncle who seemed very pleased about something and could hardly restrain his laughter.

"Let me see you catch the bird, Dick, and we will perhaps find out what is the matter with it."

Dick did not catch the Towhee for, to his great surprise, after it had fluttered along in front of him for about ten yards it suddenly flew rapidly into the underbrush and disappeared.

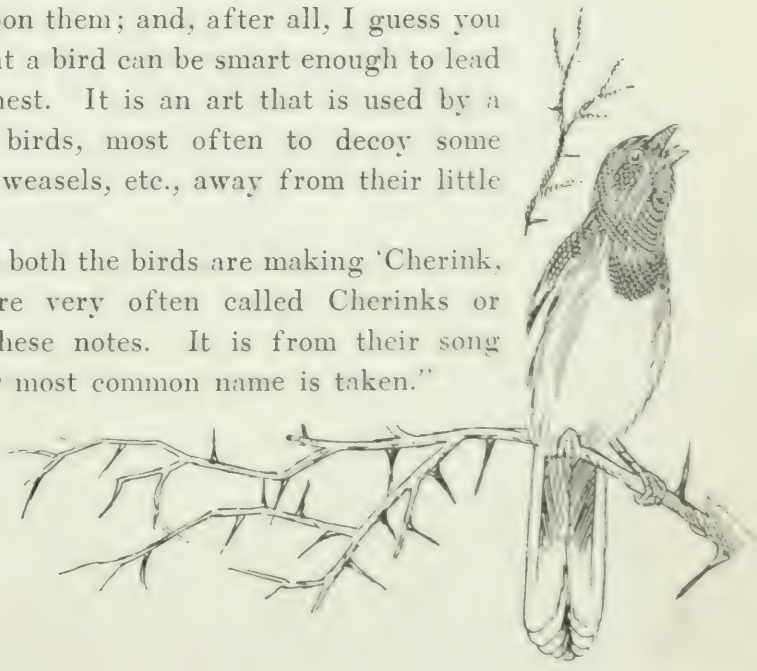
"Dick, I guess you were well fooled that time. Some birds are more clever than you would think. She was leading you on a wild-goose chase for a very good reason. I think if you go back to the spot she started from and look very carefully you will find why."

Dick and Dorothy started back but before they reached the spot two angry and frightened Towhees were flying about them; no sign of crippled wings or legs now, but quick actions and loud voices.

The children very quickly found the cause of their excitement,—four baby Towhees in a nest of fine rootlets, sunk in a hollow among the dead leaves under a small bush.

Dick was quite crest-fallen because he had been so easily led away by the mother bird so I consoled him by saying: "Well, Dick, nearly everyone is fooled by this bird-trick the first time it is played upon them; and, after all, I guess you are glad to be shown that a bird can be smart enough to lead anyone away from its nest. It is an art that is used by a great many kinds of birds, most often to decoy some animals, such as foxes, weasels, etc., away from their little ones.

"Notice the calls that both the birds are making 'Cherink, cherink'; The birds are very often called Cherinks or Chewinks because of these notes. It is from their song 'Pil-tow-hee' that their most common name is taken."



From "Land Birds"

JUNCO

It was almost noon. We were sitting on a cool, shady, mossy bank. The ground sloped sharply down to the rocky bed of a noisy little brook.

"I remember a day last summer, Dorothy, when I was sitting in just such a place as this. The ground was covered with the same kind of moss, the brook was just as noisy and a stone almost like the one on which you are leaning was only a few feet from me. It was on one of those beautiful islands that dot the Maine coast. I had been studying a large gull colony about which I will tell you later.

"Well, I was enjoying myself watching the great birds soaring lazily overhead when a very sharp 'chip' came from a low branch of the hemlock. I looked up and saw a little gray and white bird, one of your winter friends, one with a pink bill, white outer tail feathers and with a dark gray breast showing very sharply against the white below it."

"I know! It was a Slate-colored Junco," said Dorothy. "They stay around the barn nearly all winter; Dick and

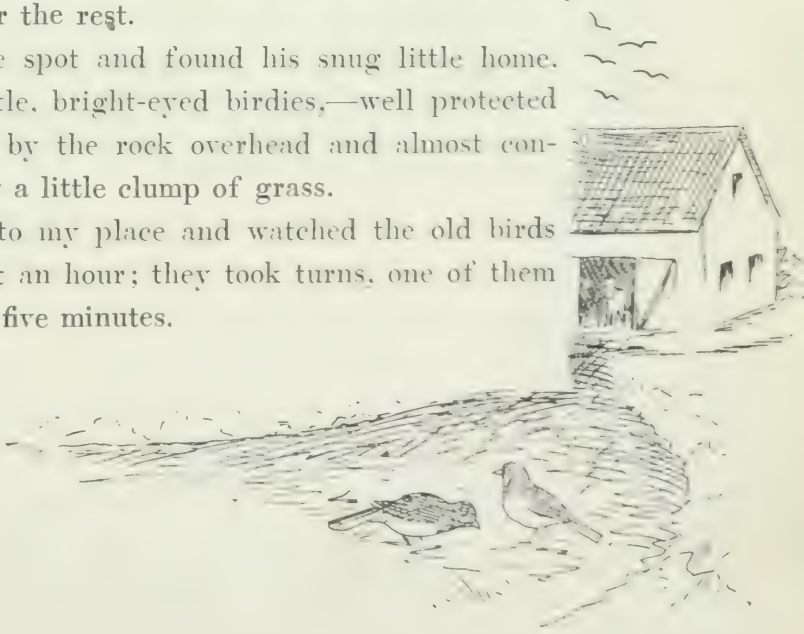
I throw out chaff and grain for them. One of them last winter became so tame he would eat out of our hands."

"We had lots and lots of fun with our Juncos," said Dick, "but now we want to hear about yours."

"Well, as I said, I looked up when he chipped and saw that he had a fat little worm in his beak. That looked interesting so I sat very, very still. The little fellow chipped a few minutes, watching me very closely, then came a little nearer and nearer, chipping less and less often; I almost held my breath and hardly winked for fear of alarming him; at last he fluttered down on the top of the stone not four feet from me. A chorus of baby bird voices greeted him and he at once hopped down under the overhanging end of the stone; in a few moments, having satisfied the hunger of at least one of his children he flew away in search of more dainties for the rest.

"I hurried to the spot and found his snug little home, containing three little, bright-eyed birdies,—well protected from sun and rain by the rock overhead and almost concealed from view by a little clump of grass.

"I hurried back to my place and watched the old birds feed them for about an hour; they took turns, one of them coming about every five minutes.



From "Land Birds"

CHIPPING SPARROW

"Well, Dick, I have to go to town this morning so you and Dorothy will have to take the walk without me; but you can tell me this evening what you see."

"I wanted you to go with us down to the old mill; we will not go there today but wait until tomorrow when you can be with us."

I could tell as soon as I reached the house that night that the children had not been idle, for the boy's eyes twinkled and he could scarcely wait until we were seated on the porch, after supper, before telling me what he and his sister had been doing during the day.

"Oh, Uncle George! We went out in the orchard just after you went away and I found a nest of a Chipping Sparrow with young birds almost big enough to fly."

"And I found one, too, with three eggs in it," said Dorothy, adding proudly, "and I climbed the tree too. It was such a pretty little nest,—nearly all made of horsehair, with only just a few small rootlets on the outside. And the eggs

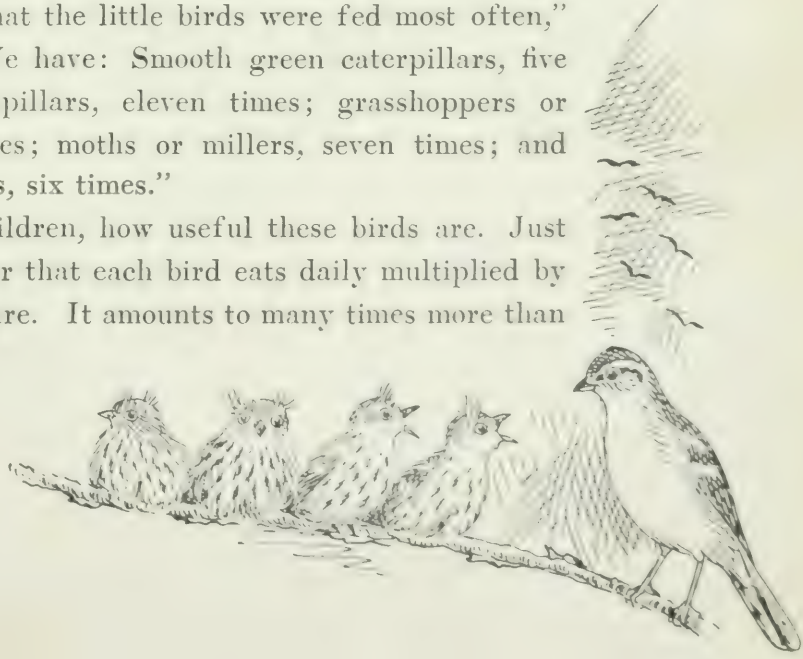
were just beautiful,—almost sky-blue with a pretty ring of brown and black specks around the large end."

"But we had the most fun with my nest," broke in Dick, "for we sat under the tree ever so long and watched the little ones being fed. We took turns using the field glasses and tried to see if we could tell what kinds of insects the mother and father brought each time. We did not have any watch so we could not tell how often they fed the little ones, but it seemed as though one of the parents was there about all the time. They took turns most of the time, but once in a while the two would come at the same time.

"Nearly every time after the male bird had taken his turn at feeding, he would go to the same branch above the nest and sing,—a 'chip-chip-chip'—so fast that the 'chips' all ran together."

"We wrote down on this piece of paper, as nearly as we could make out, what the little birds were fed most often," said Dorothy. "We have: Smooth green caterpillars, five times; hairy caterpillars, eleven times; grasshoppers or crickets, seven times; moths or millers, seven times; and hard-shelled beetles, six times."

"That shows, children, how useful these birds are. Just think of the number that each bird eats daily multiplied by all the birds there are. It amounts to many times more than you would believe."



From "Land Birds"

GOLD FINCH

According to Dick's wish, eight o'clock in the morning found us on our way to the old mill. It was about half a mile away on an old run-down farm. The brook had been checked so as to form quite a large pond,—l a r g e enough so that years and years before it had furnished water to turn a wheel so that the farmer could grind his own and his neighbors' corn.

Most of our way to the old mill was through pasture land that produced a little grass, quantities of weeds and many thistles; many of the thistles were in full bloom while others had gone to seed.

On the way we, of course, saw many Song, Vesper and Field Sparrows, but what interested the children most were the numbers of Goldfinches that flew from the thistles when we approached too near. Goldfinches are great favorites with everybody; by country boys and girls they are very often known as "Wild Canaries" or "Thistle-birds."

Their song is very sweet,—not as long, but richer and wilder than that of the canary. People used to catch them

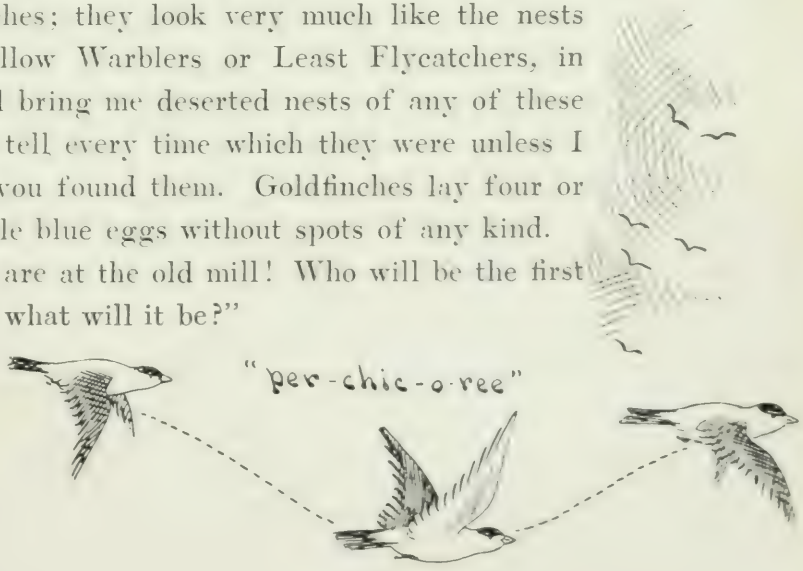
and keep them in cages, but they are too pretty and too valuable as wild birds to be kept in confinement; the law almost everywhere now prohibits catching or keeping them or other wild birds caged.

"I just love to watch Goldfinches go bounding through the air," said Dorothy, "up and down, up and down and between each bound singing 'per-chic-o-ree.'"

"They are just feeding now, on the thistle seeds; they also eat a great many weed seeds, those of wild or cultivated sunflowers and, particularly during their nesting season, a great many injurious insects.

"During the latter part of July or early in August, if you look sharply among those alders that I see about the edge of the pond, you will probably find some of their nests. They are made out of soft, silky plant-fibres and are woven into forked branches; they look very much like the nests of Redstarts, Yellow Warblers or Least Flycatchers, in fact if you should bring me deserted nests of any of these birds I could not tell every time which they were unless I knew just where you found them. Goldfinches lay four or often five very pale blue eggs without spots of any kind.

"Well, here we are at the old mill! Who will be the first to find a nest and what will it be?"



From "Land Birds

ORIOLE

"There is a bird! Just flying into that elm that hangs its branches out over the water. It is a Baltimore Oriole," exclaimed Dick. "There, he is calling to his mate now; I like to listen to them because their notes are so sharp and clear and wild. Their song is beautiful too,—they put so much force and good will into it."

"I guess Mrs. Oriole heard him call to her, for here she comes," said Dorothy, as a bird flew over our heads, at the same time giving an answering call.

Her mate was not the only bird watching for her coming for, from the end of the branch that hung furthest over the water, came the loud, whining calls that only young orioles can make.

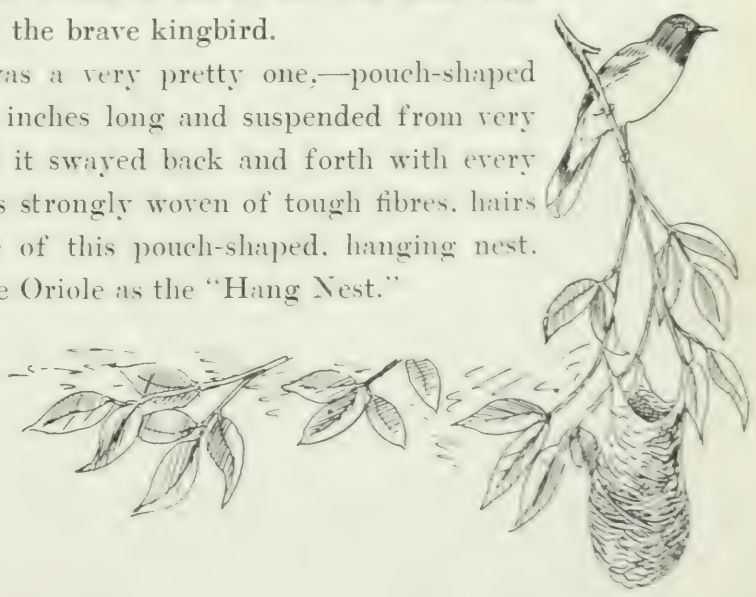
It was toward this branch that the mother bird flew; we could see the branch and nest shaking violently as all the little birds tried to reach the rim at the same time. They are always very forward youngsters, very noisy and anxious to get the lion's share of all food that their parents bring. It is a wonder that they do not more often fall from the

nest as they jostle each other and try each to reach furthest for the coming breakfast.

We sat down and watched the birds for about an hour. It made Dorothy quite provoked because Mrs. Oriole had to hunt for nearly all the food. Mr. Oriole helped once in a while but most of his time was spent in singing, getting insects for himself and in looking pretty; he was a beautiful bird, the blackest of black and the very brightest of orange. As Dorothy remarked, it is no wonder that many people call such birds "Golden Robins" or "Fire-birds."

He was a valiant bird too and allowed no other kind to come near his home. While we watched, he had several very exciting fights with a Kingbird that often flew out over the water after insects. They were about evenly matched in skill and strength; the Oriole is one of the few birds that can hold its own with the brave kingbird.

This oriole nest was a very pretty one,—pouch-shaped as usual, about eight inches long and suspended from very slender twigs so that it swayed back and forth with every breath of air. It was strongly woven of tough fibres, hairs and string. Because of this pouch-shaped, hanging nest, many people know the Oriole as the "Hang Nest."



From "Land Birds"

RED-WINGED BLACKBIRD

Dorothy and Dick had been so interested watching the Orioles that they had paid little attention to other birds. They were reminded of this when an old male blackbird, with bright red and white shoulderstraps, spied us sitting on the bank.

Blackbirds are inquisitive and also noisy; the old fellow came over to see what we were about and his harsh "chucks" of alarm soon brought a dozen other members of the colony about us.

"They make as much noise as though we were robbing their homes," said Dick, "so we might as well go over and look at them; they cannot scold any louder."

They could, though, for they were joined by their mates as we approached the end of the pond where they nested; they "chacked" and "chucked" and "chee'd" so loudly that Dorothy wanted to go away at once, but Dick was set on first finding one of their nests.

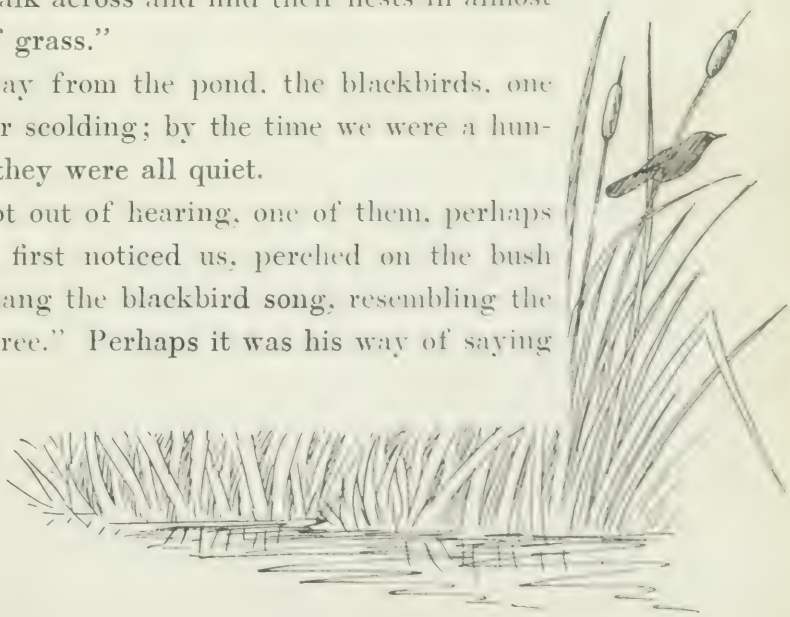
We could see one nest in a bush quite a ways out in the water and could tell where there were several more by the

way the birds hovered over certain spots. Finally Dick found one in a bush on the very edge of the pond. By leaning out over the water carefully we could see the four dull-blue eggs that were in it; they were curiously scrawled and marked with black and brown, looking, as Dorothy said "as if a fly has stepped in the ink bottle and then walked over them. The nest was quite large,—made of coarse grasses woven together to form a basket with a deep cup-shaped center.

"Red-winged Blackbirds do not always build in bushes like these, Dick; near my home is a marshy meadow, always partly covered with water when the blackbirds build their nests, but it dries up by the time their little ones appear so that I can walk across and find their nests in almost every large clump of grass."

As we started away from the pond, the blackbirds, one by one, stopped their scolding; by the time we were a hundred yards distant, they were all quiet.

Just before we got out of hearing, one of them, perhaps the old fellow that first noticed us, perched on the bush above his nest and sang the blackbird song, resembling the syllables "quong-ka-ree." Perhaps it was his way of saying good bye to us.



From "Land Birds"

COWBIRD

We crossed the fields and were nearly to the house when Dick said to his sister:—"Come on, Dorothy! Let us look at the Chipping Sparrow nests we found yesterday."

They were off with a rush, racing to see who would reach the orchard first. Dick arrived at the tree first with Dorothy right at his heels. Up both went as nimbly as squirrels, and soon were looking into the nest Dorothy had found.

"Uncle George! Come here quick! There are five eggs now! There were only three yesterday; and one of them is bigger and white, with little brown spots all over it." These and other exclamations came rapidly from the two excited children.

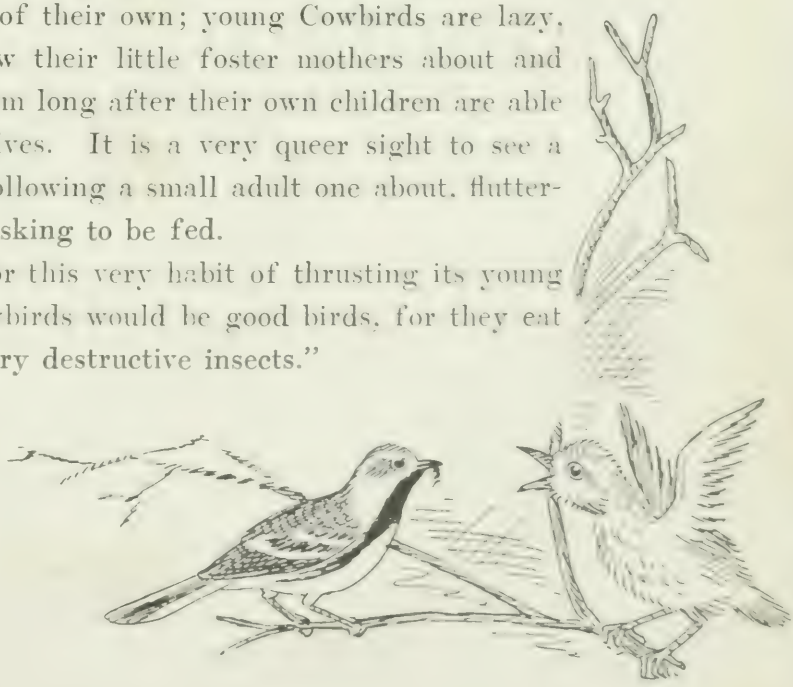
"I am sure the large egg is that of a Cowbird," said Dick. I climbed up beside them and sure enough. the little Chipping Sparrow had laid her fourth egg and a Cowbird had added hers to make five. The nest was small and was almost full of eggs. That of the Cowbird was quite warm while the other four were cold. showing that the large one had been very recently laid.

"Well, Dick, I guess we had better remove the egg of the Cowbird. As it has just been laid, I do not think the little sparrow will leave the nest if we take it out, and surely if we let it hatch with hers, the nest will be so crowded that her own little ones will be killed.

"The Cowbird is the only bird we have in this country that always lays its eggs in other birds' nests, leaving its children for them to care for. Their eggs are nearly always laid in the nests of smaller birds and since the young Cowbird is so much bigger and stronger than its foster brothers and sisters, the latter are very often forced out of the nest or starved because he is so greedy.

"Cowbirds are often known as "Lazy Birds" because they build no nest of their own; young Cowbirds are lazy, too, for they follow their little foster mothers about and make them feed them long after their own children are able to care for themselves. It is a very queer sight to see a large young bird following a small adult one about, fluttering its wings and asking to be fed.

If it were not for this very habit of thrusting its young on other birds, Cowbirds would be good birds, for they eat a great many of very destructive insects."



From "Land Birds"

Leaving this nest, which Dorothy proudly claimed as hers, we went to the other end of the orchard to see what had become of the little birds that were in the one that Dick found. Not a sign of them could be found; they had left their home early in the morning and were probably safely hidden among the leaves in some of the other trees, being carefully tended by their parents until they could fly about and look out for themselves.

WOOD PEWEE

Although Dick's sparrows had disappeared, he found something else that pleased him even more than the finding of their nest. It was the beginning of the nest of a Kingbird. We had seen and heard this noisy fellow about the orchard every day but had not been able to locate his nest, for the very good reason, as we now knew, that it had not been built.

Just then we saw a relative of the Kingbird.—one that interested Dorothy very much because, as she said, "he has such a sad and plaintive voice." It was a Wood Pewee. We soon found that he had five regular lookout perches

and that he would return to one or another of these after each air voyage.

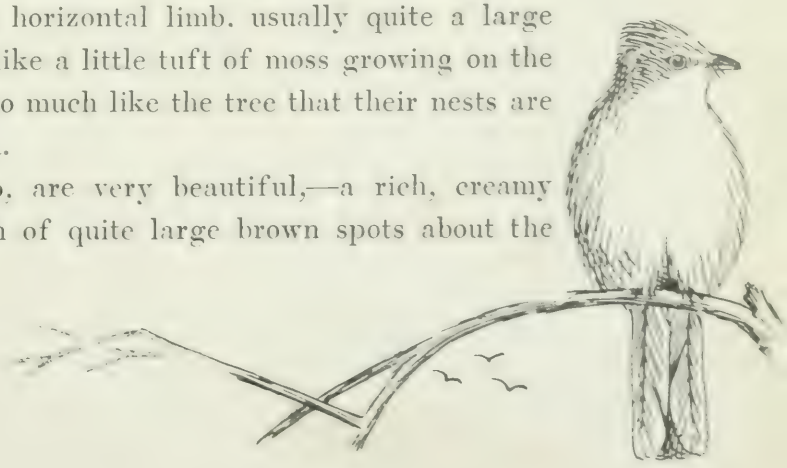
He would dash quickly out, snap up the gnat, mosquito, moth or whatever insect happened to be passing, and having returned to one of his favorite perches, throw back his head and whistle in a very high pitch "pee-a-wee,"—a song rather sweet, restful and also, as Dorothy said, sad. sometimes after a short pause, he would add to this song two more notes, usually described as "pe-eer."

"Where do you suppose his nest is, Uncle George?" asked Dick.

"It may possibly be in some of these apple trees, but I think it more likely to be in those oaks on the edge of the woods. Probably Mrs. Pewee is sitting on the nest while he is hunting in this orchard.

"They make one of the prettiest of bird nests,—of woolly fibres covered on the outside with bits of lichens or moss such as grows on the branches of many trees. This nest is always placed on a horizontal limb, usually quite a large one, and looks just like a little tuft of moss growing on the top of it. It looks so much like the tree that their nests are quite difficult to find.

"Pewee eggs, too, are very beautiful,—a rich, creamy white with a wreath of quite large brown spots about the large end."



From "Land Birds"

KINGBIRD

Dorothy and Dick spent a great deal of their spare time during the next month in watching the progress of the Kingbird family.

They watched the building of the nest until it was completed on the third day from the time it was started. With the field glasses they saw them weave together the gray fibres made most of it and even hung up pieces of string on the branches and watched the birds get and work them into the outside of the nest.

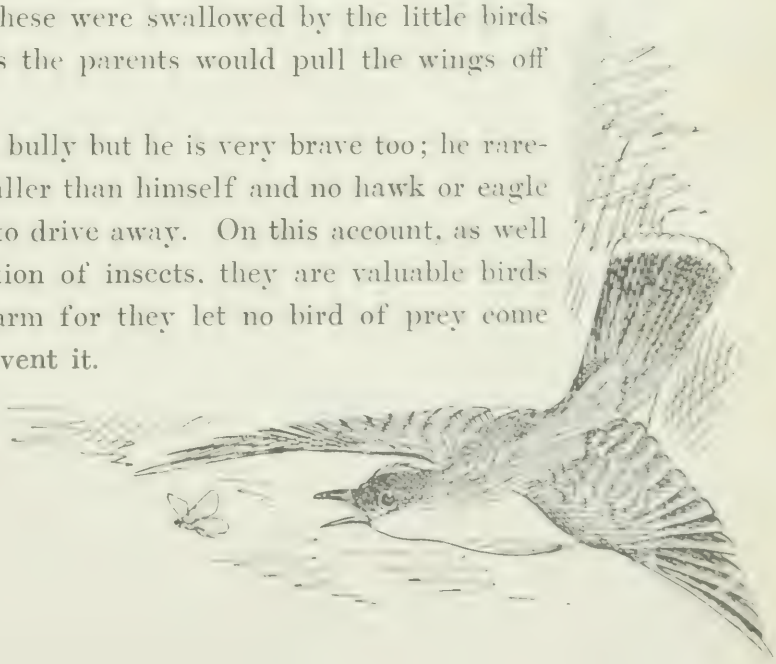
Because they saw the children so often, the birds paid little attention to them. They would go about their work of building and, later, of caring for their little ones while Dorothy and Dick were sitting on the ground right under them. Usually if one goes near the home of a Kingbird, the birds are very, very noisy and even try to drive you away. I have several times seen them strike a boy on the head as he was climbing to their nest.

These birds, though so quiet when the children were about, would allow no one else to approach without making the usual fuss about it.

Although both the birds were very much alike in plumage, the children could tell them apart for the made had lost one wing feather in some one of his many battles with other birds that came too near his nest. He was very proud of the handsome brown-specked eggs the nest contained and often hovered in the air over them to see that they were all right, but he never took his turn at sitting on them.

When his little ones appeared, he was fiercer than ever and became quite savage in his attack upon other birds. He was very expert at catching insects and fed the little Kingbirds more often than his mate did. He brought, among other things, many locusts, moths dragon flies and even bees; most of these were swallowed by the little birds whole, but sometimes the parents would pull the wings off first.

The Kingbird is a bully but he is very brave too; he rarely attacks a bird smaller than himself and no hawk or eagle is too large for him to drive away. On this account, as well as for their destruction of insects, they are valuable birds to have about the farm for they let no bird of prey come near if they can prevent it.



From "Land Birds"

BLUE JAY

From now on Uncle George was unable to give as much of his time to out of door walks with the children. Dick and Dorothy, however, spent nearly all of every morning or afternoon watching their old friends and trying to find new ones. Every evening they told Uncle George about what they had seen and listened to his stories about birds he had seen in different places.

"We found some Blue Jays today, Uncle George," said Dick. "We did not see the nest but saw one of the old jays feed one of the little ones."

"Then we hunted," added Dorothy, "until we found three others. They could fly just a little but we managed to catch all of them. The jays did not like it a bit when we caught their children; they scolded and screamed and whistled. The little ones were not afraid of us at all. We played with them a few minutes and then put all four in a row on a branch.

"As soon as we went away a short distance, the mother jay came back and fed them. Blue Jays are beautiful birds, are they not, Uncle George?"

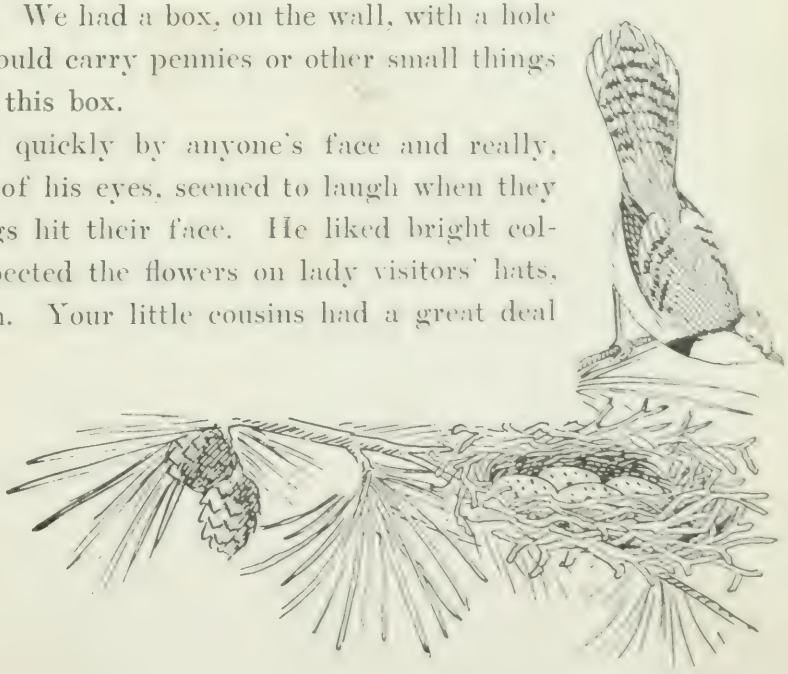
"They are beautiful birds, Dorothy, and it is a pity they are not as good as they are handsome. They are very mischievous and often cruel, for they like to eat eggs of other birds and sometimes kill their little ones too."

"Oh, aren't they wicked? I never would have supposed such things of such pretty birds."

"You see, Dorothy, it is rather a family habit. All members of the crow family, to which jays belong, have these same destructive customs.

"Jays make very interesting pets, but they have to be continually watched for they are always getting into mischief. One that I kept for several years would steal everything that he could carry away. He had a great liking for pennies and would always catch them in his beak when they were thrown to him. We had a box, on the wall, with a hole in the top and he would carry pennies or other small things and drop them into this box.

"He liked to fly quickly by anyone's face and really, from the twinkling of his eyes, seemed to laugh when they jumped as his wings hit their face. He liked bright colors and always inspected the flowers on lady visitors' hats, often to their alarm. Your little cousins had a great deal of fun with him."



From "Land Birds"

DOWNY WOODPECKER

"Now Uncle," said Dick, "tell us about the Downy Woodpecker and the woodland apartment house. Dorothy has never heard you tell it."

"All right, Dick. I will not have time to tell all the interesting things that happened while I was visiting this apartment house, but I will tell those that deal with the Downy Woodpecker,—one of the chief characters in the woodland sketch.

"I was pushing my way through some thick brush, just coming to a clearing, when I heard the beautiful song of a House Wren,—just such a song as our wren sang the other day down by the wall. This song was unusual because the bird would stop singing very suddenly right in the middle of his song. He kept singing and stopping and as soon as I came to the edge of the woods I saw the reason for it.

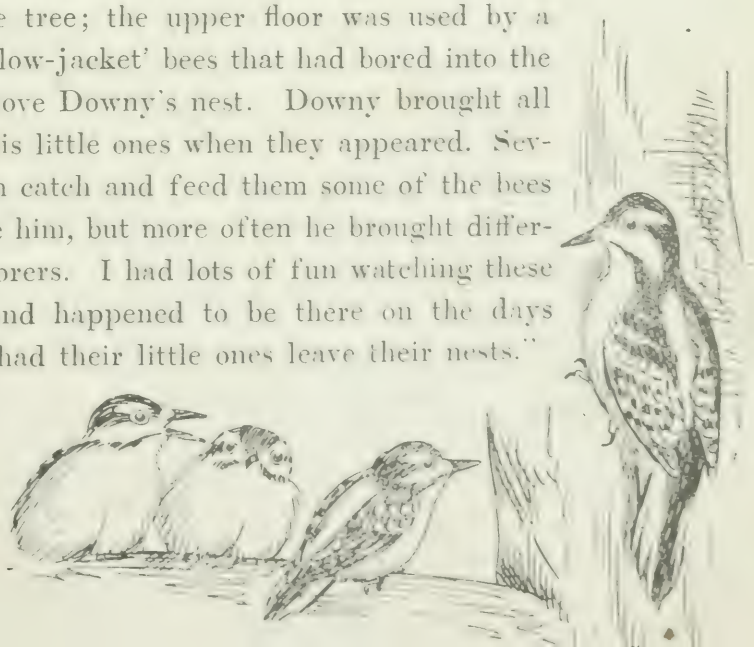
"He was perched on the end of a branch on an old dead apple tree and had just commenced his song, when a black and white bird,—the Woodpecker,—dashed at him. The

wren changed his position, started his song again and the same thing happened.

"I soon found that 'Downy' had his nest in a hole about half way up the trunk of the tree. He was afraid that the loud music of the wren would attract somebody or something to the spot and that they would discover his home. Looking a little closer I found that Mrs. Downy, who had just flown out of the nest, had been covering five glossy white eggs; and I also found that Mrs. Wren was sitting upon seven creamy, brown-specked ones in the hollow end of a limb not three feet below the nest of the woodpecker.

"The wren was singing because he was so very happy about his home; the woodpecker was trying to stop him because he feared someone would find his.

"These were the two middle flats of the apartment house; the ground floor was occupied by a Chipmunk, that lived under the roots of the tree; the upper floor was used by a small colony of "yellow-jacket' bees that had bored into the soft wood a little above Downy's nest. Downy brought all kinds of insects to his little ones when they appeared. Several times I saw him catch and feed them some of the bees that lived just above him, but more often he brought different kinds of wood borers. I had lots of fun watching these two bird families and happened to be there on the days when each of them had their little ones leave their nests."



From "Land Birds"

HUMMINGBIRD

"Oh, Uncle George," exclaimed Dick, "there have been two tiny hummingbirds about the flower garden nearly all day. The male is 'Ruby-throat' and Dorothy has named his mate 'Emerald-back.'

"We have had ever so much fun watching them; they visit most all the flowers but I think they liked the petunias the best.

"We sat on the grass in front of the flower bed and sometimes they would come within two feet of us. They look so queer when they have their heads and bills inside the flowers; their wings move so fast you cannot see them at all,—just a sort of blur."

"They kept going from the flowers to the orchard," said Dorothy, "and Dick is sure they must have a nest there somewhere, but we could not find it."

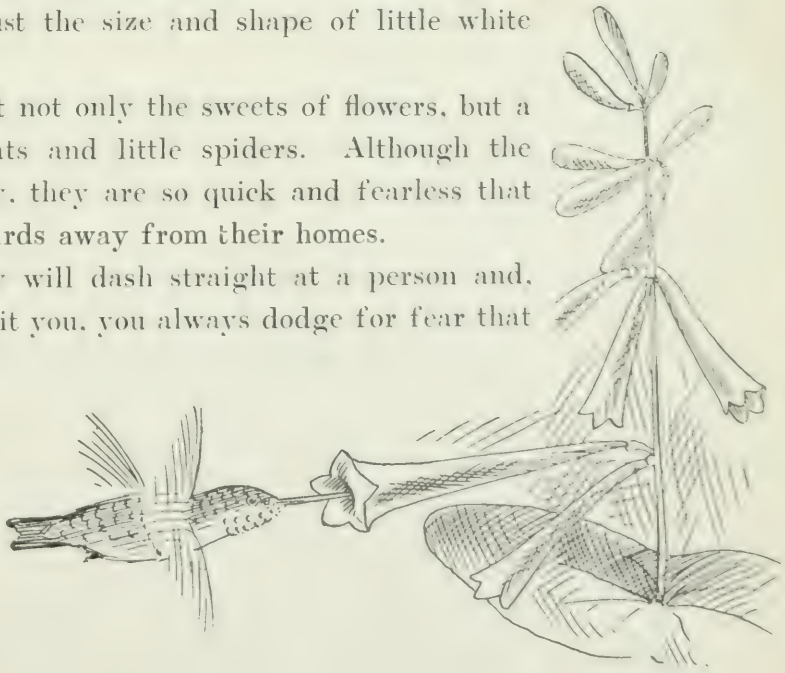
"Probably it is in the orchard, Dorothy, but more often they build their nests in trees in the woods. I have found them in vines not more than five feet from the ground and at most all distances up to sixty feet above the ground in a

large pine. The nests are very difficult to find unless you chance to see the bird building or going to it.

"It usually takes four or five days for them to finish a nest. The body of it is built almost wholly of the soft woolly substance you often find on the stems of ferns; bit by bit this is carried and placed on the top of a branch, where it is worked and molded into the proper shape. Then the most interesting part comes,—that of decorating the outside. The birds buzz up and down the sides of trees selecting suitable bits of moss; these they put on the sides of the nest, the natural stickiness of the wool, perhaps aided a little by the bird's saliva, causing them to be firmly held. The completed nest perfectly resembles a little knob of moss growing on the upper side of the limb. Their two little white eggs are just the size and shape of little white beans.

"Hummingbirds eat not only the sweets of flowers, but a great many tiny gnats and little spiders. Although the birds are so very tiny, they are so quick and fearless that they drive all other birds away from their homes.

"When angry, they will dash straight at a person and, although they never hit you, you always dodge for fear that they will."



From "Land Birds"

NIGHTHAWK

Our talk that evening changed very quickly from the hummingbird to another as a harsh, rasping 'peenk' sounded from somewhere overhead; it was followed by answering notes from other directions.

"Oh! The first Nighthawks we have seen this season," exclaimed Dick.

"If you and Dorothy lived in the city you would see plenty of them for a great many are flying over the houses every evening. They like there better than in the country because there are more insects flying about and the gravel roofs of many of the buildings make fine places for them to nest on."

"Do you mean to say that they nest on top of the roofs, Uncle George?" asked Dick.

"Yes, they make no nest but they do lay their two eggs right among the pebbles on the roofs. And the eggs are mottled with gray so that it is hard to tell them from the pebbles without looking very sharply."

"Well, I guess Nighthawks and English Sparrows are about the only birds city children see more often than we do," said Dorothy.

"You are right; for instance few of them ever heard or saw that bird so like the Nighthawk.—the Whip-poor-will, while you can hear them every night."

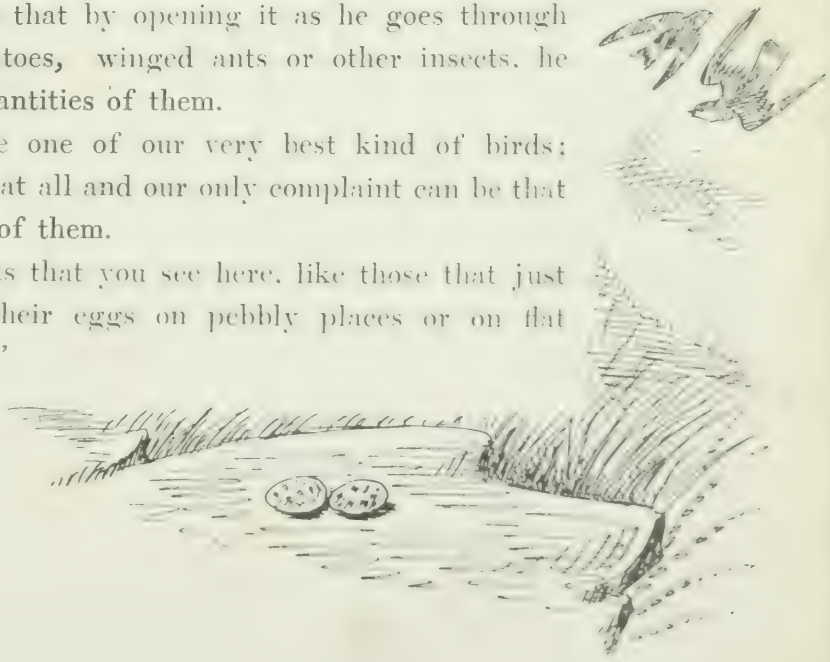
There, one of the Nighthawks is swooping now!" exclaimed Dick; "Just see him go down, there.—he has turned upward again; what makes that booming sound, Uncle George?"

"That is caused by the air rushing from under their wings as they turn them to check their downward course. Some folks think they make those rapid swoops just in play, while others think they see swarms of insects below them and are dashing down to secure as many as possible. Certainly they do get a very many insects as they go coursing through the air.

"While the Nighthawk bill is very small, his mouth opens very, very wide so that by opening it as he goes through a swarm of mosquitoes, winged ants or other insects, he scoops up great quantities of them.

"Nighthawks are one of our very best kind of birds; they do no damage at all and our only complaint can be that there are not more of them.

"The Nighthawks that you see here, like those that just passed over, lay their eggs on pebbly places or on flat stones in pastures."



From "Land Birds"

KINGFISHER

"I will not have to go to the city until afternoon, so we can spend this morning together." This was the delightful news that their uncle told the children one morning at breakfast.

"Oh, good!" exclaimed Dick.

"We can go down to the mill pond again. It has been nearly three weeks since we were there and I suppose that most of the blackbirds have finished with their nesting, but we can surely find something else."

To the children's surprise and delight we found that the blackbirds were still there and we found several more of their nests, some with eggs and some with young birds, but we found something else that was of even more interest to them.

Dick first noticed the gray and white bird hovering, with rapidly beating wings, over the pond as though he were about to dive into the water; instead, however, he flew across the pond making a harsh rattling sound, as he went, that announced him to be a Kingfisher.

He perched on a beam that projected from the old mill out over the water and waited patiently for a fish to come

near the surface: we waited just as patiently to see what he would do.

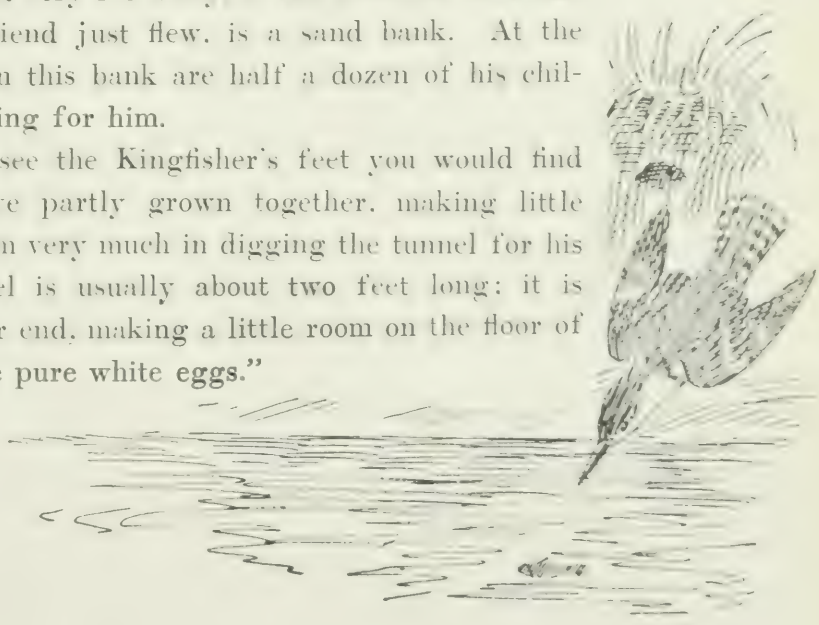
"I think he sees a fish now," said Dick, who had the field glasses. "Yes, there he goes!"

Straight down, like an arrow he went and disappeared beneath the surface: in an instant he emerged, shook the water from his feathers and we could see that he carried a fair sized fish in his large beak. Instead of going to his perch and swallowing his prey as usual, he gave a half-smothered rattle and started off across the field.

"It looks as though, this time, he was fishing for some little kingfishers instead of for himself, doesn't it children? Well, he is a good fisherman and has better success than most boys or men."

"Somewhere, not very far away, in the direction in which our Kingfisher friend just flew, is a sand bank. At the end of a tunnel in this bank are half a dozen of his children eagerly waiting for him.

"If you could see the Kingfisher's feet you would find that his toes have partly grown together, making little scoops that aid him very much in digging the tunnel for his nest. This tunnel is usually about two feet long: it is larger at the inner end, making a little room on the floor of which are laid the pure white eggs."



From "Land Birds"

BLACK-BILLED CUCKOO

Almost before the Kingfisher we had been watching had disappeared from sight, the attention of the children was drawn to some strange sounds coming from a tangled thicket bordering the pond and only a short ways from us, —low, deep croaks sounding like the syllables 'kow-kow-kow' repeated slowly many times followed by a double note like 'kow-uh, kow-uh.'

After thinking a few moments, Dick correctly guessed that it must be a Black-billed Cuckoo.

We carefully made our way to the thicket and found the Cuckoo perched in a stunted apple tree right beside a tent caterpillar nest. Between songs he was eating his fill of these hairy insects.

During the fifteen minutes that we stood watching him, he gave his croaking song four times, ate twenty-five caterpillars and twice flew to the farther end of the thicket, each time carrying a caterpillar in his mouth.

We concluded that he must have a nest there and so we very quietly walked around the thicket to see if we could find it.

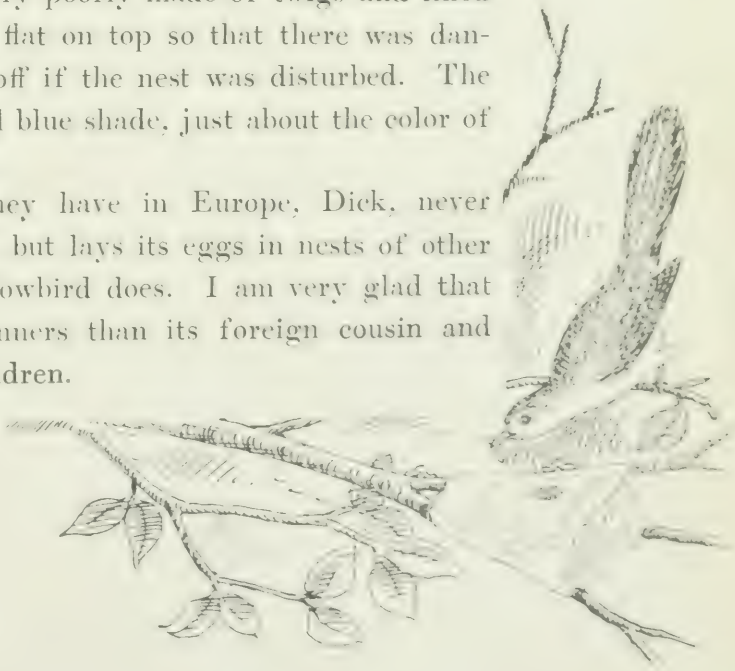
Suddenly Dick whispered: "There it is!" And sure enough, his sharp eyes had found it, and Mrs. Cuckoo was sitting upon the nest, apparently not yet having seen us.

We had watched her but a few moments when Mr. Cuckoo slipped quickly through the brush and glided to a branch just over her head. She greeted him with a short croak and greedily seized the caterpillar that he had brought.

This courtesy on the part of the Cuckoo to his mate is not unusual, but it seems strange when one knows them well, for, as a rule, they appear to have no great affection for their families; at least they do not show it as other birds do.

She left the nest soon after and the children looked it over carefully; it was very poorly made of twigs and lined with "catkins,"—almost flat on top so that there was danger of the eggs rolling off if the nest was disturbed. The three eggs were of a dull blue shade, just about the color of those of Robins.

"The Cuckoo that they have in Europe, Dick, never builds a nest of its own, but lays its eggs in nests of other birds the same as our Cowbird does. I am very glad that our bird has better manners than its foreign cousin and looks out for its own children.



From "Water Birds"

"What birds shall we talk about tonight?" Uncle George asked as he and the children sat on the veranda one evening.

"Tell us about owls," said Dick. "Jimmie said there was a 'Hoot Owl' in the woods back of his house last night."

"There are a great many kinds of owls and I am afraid it would take me a very long time to tell about all of them, so we will talk about a few that live right around here.

BARRED OWL

"Let us first take the name, 'Hoot Owl'; it is not at all certain what owl anyone means when they speak of it as a hoot owl for the name is used for about all kinds.

"The little Screech Owl has a very pretty trill, yet I have often heard it called a hoot owl; it is more often known, though, as the 'Cat Owl' because of its ear tufts. Both the Barred Owl and the Great Horned Owl really hoot,—a series of dismal, hollow sounds, like 'Hoo, hoo, hoo-o-o.' The Barred Owl is the most common of the large owls. All of

them, large or small, catch birds sometimes but they live chiefly upon mice, moles, rabbits, squirrels, etc.

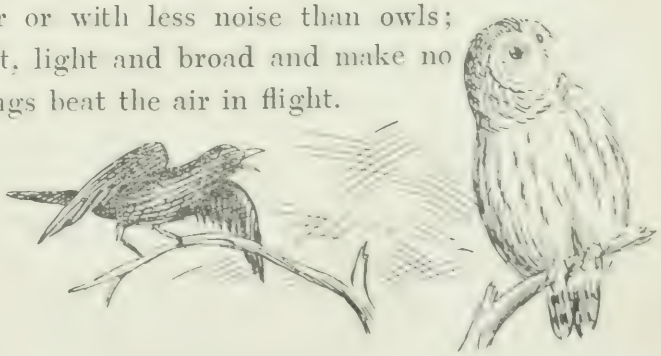
"All small creatures, like mice, owls swallow whole,—fur, bones and all; later these parts that are not good to eat are thrown up in the form of round pellets. Owl nests may often be found by seeing these 'fur and bone' pellets on the ground.

"The Screech Owl always nests in holes in trees, most often in apple trees, and the Barred Owl does when she can find a suitable hollow tree. If such places happen to be scarce she will lay her three or four round white eggs in an old crow nest.

"Many people think owls cannot see well in daylight. They are mistaken, for nearly all the owls can see as well as most other birds in bright light. As they do most of their hunting at night, they try to find quiet places and sleep during daytime.

"Crows do not like owls and frequently we can tell by their actions where an owl is sleeping; they gather about him, caw and dash at him until he is forced to fly to some other place.

"No birds can fly easier or with less noise than owls; their feathers are very soft, light and broad and make no sound whatever as their wings beat the air in flight.



From "Water Birds"

OSPREY

"On my way to the city this morning, Dick, I saw one of the birds you liked so well to watch at the seashore last summer."

"Was it a Fish Hawk, Uncle George?"

"Yes, Dick, it was a Fish Hawk or Osprey. He was flying up the river and kept opposite the train for a short while, but our speed was too much for him and he was left behind."

"It is such fun to see them catch fish. I wish we were at the shore now," said Dorothy, "but anyway we will be in about two weeks from now. Then Dick and I will have great sport watching the gulls and terns and Fish Hawks."

"I have read of eagles robbing Fish Hawks of the fish they catch," said Dick. "Did you ever see them do so, Uncle George?"

"Yes, Dick, I have,—a number of times. On the coast of Virginia at Lynn Haven Inlet, Bald Eagles were very abundant. I counted sixteen of them one morning all in sight at the same time. Most of them kept near the water, picking up fish that washed ashore or catching them in the

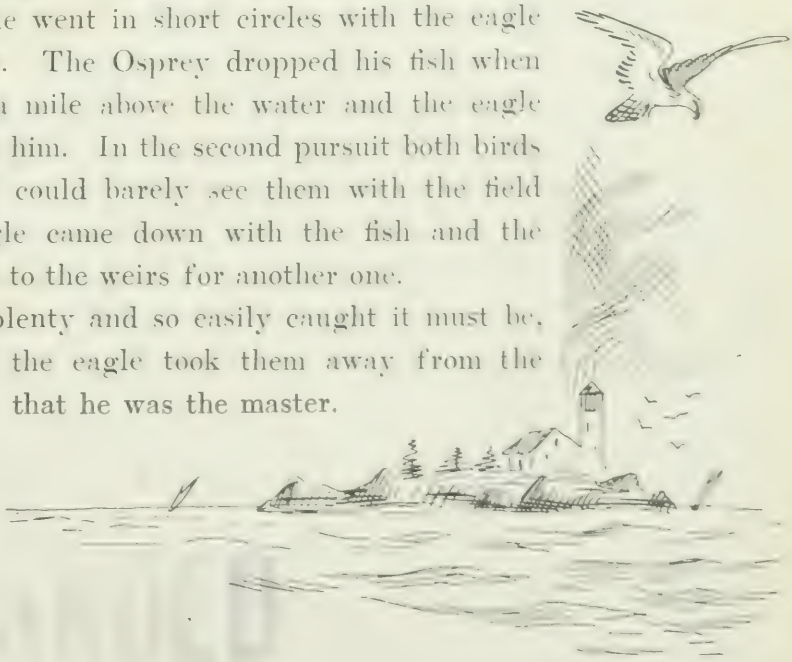
weirs or fishermen's nets that were set close to shore.

"I found an Osprey nest about two hundred yards back from the beach. It had young in it and I sat a short distance away for one whole morning watching them and the eagles.

"The Ospreys caught most of their fish from inside the nets: of course this was very easy fishing as there were lots of fish there and they could not escape. Sometimes they would hover over the net and plunge under water in their usual manner and again they would simply fly close to the water and reach down and grasp a fish in their powerful feet and talons.

"Twice during that morning I saw an eagle start in pursuit of one of the Ospreys as he was bringing a fish to his nest. Uttering shrill, piercing whistles, the Osprey tried to escape; up and up he went in short circles with the eagle following just below. The Osprey dropped his fish when about a quarter of a mile above the water and the eagle caught it as it passed him. In the second pursuit both birds went so high that I could barely see them with the field glasses, but the eagle came down with the fish and the Osprey had to go out to the weirs for another one.

"As fish were so plenty and so easily caught it must be, in these cases, that the eagle took them away from the Osprey just to prove that he was the master.



From "Land Birds"

SPARROW HAWK

"Another kind of hawk, the smallest that we have in this country, was very common along the coast at Lynn Haven.

"Do you remember the little Sparrow Hawk that flew overhead one morning just as we were starting on one of our walks? Well, the sand had blown in and half covered and killed most of the trees along the beach. Many of these trees were decayed and had holes in them.

"These made fine homes for Sparrow hawks; at almost any time I could see one or more of them flying about, always with the same rapid beats of the wings and short sails, just as the one we saw the other day flew. While I was watching the Ospreys and eagles, I had plenty of time, too, to keep one eye on the doings of these little hawks.

"I saw several of them suddenly dash down to the ground and capture grasshoppers; once one of them caught one of the insects in the air.

"Several times, too, I saw Sparrow Hawks catch some of

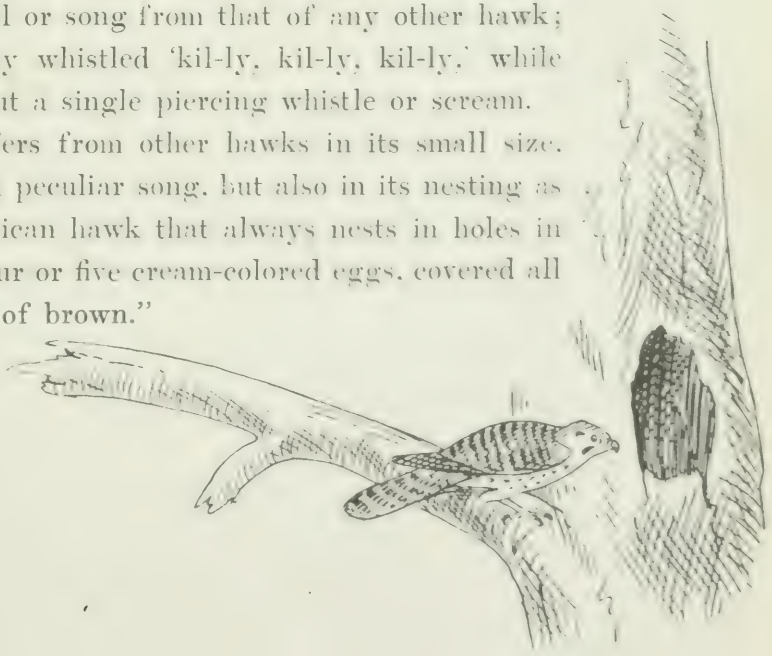
the very lively and numerous lizards that were sunning themselves on the hot sand.

"Numbers of sand crabs were running about among the sand dunes and, although they are very difficult to catch, they could not escape the speedy little hawks,—at least not all the time for twice I saw one of the little fellows bear a crab off in his little claws.

"Wherever field mice or moles are to be found, Sparrow Hawks feed upon them rather than upon anything else; so, by destroying these little mammals and grasshoppers, these hawks may be counted as among our most valuable birds.

"You can see from the picture in your bird book that there is a great difference in plumage between Mr. and Mrs. Sparrow Hawk; the males and females of most hawks are very similar in plumage. The Sparrow Hawk also has a very different call or song from that of any other hawk; it is a very rapidly whistled 'kil-ly, kil-ly, kil-ly,' while most hawks have but a single piercing whistle or scream.

"It not only differs from other hawks in its small size, bright plumage and peculiar song, but also in its nesting as it is the only American hawk that always nests in holes in trees. They lay four or five cream-colored eggs, covered all over with fine dots of brown."



From "Water Birds"

MOURNING DOVE

"I am quite sure, Uncle George, that I saw two Mourning Doves today," said Dick one evening. "They flew from the ground under the old oak in the pasture; I could see the white outer feathers and the pointed tails as they flew away but I was not close enough and they went too fast for me to see the black spots on the sides of the head so as to make sure they were the doves."

"They probably were Mourning Doves, Dick. These birds, though, are quite rare in Massachusetts, but are common in the Southern and Central States.

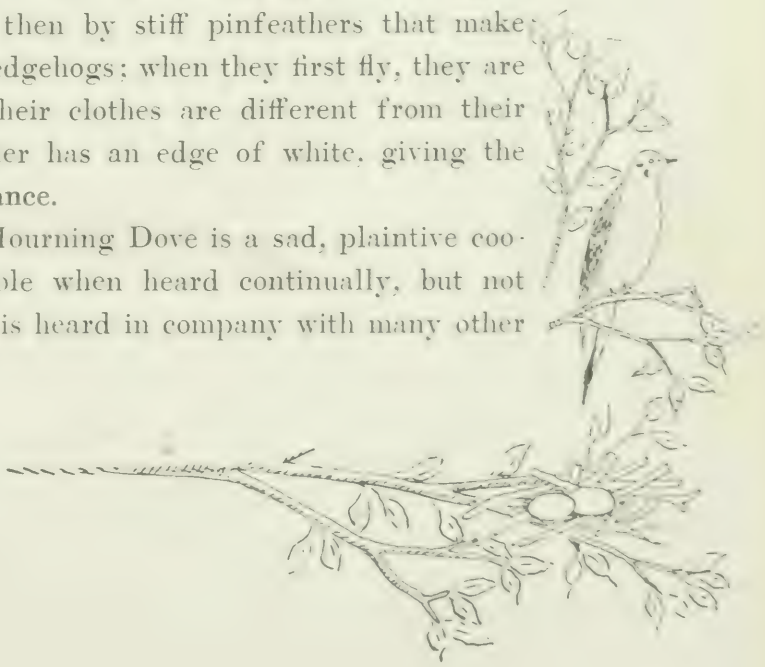
"Although they are much smaller and quite different in plumage, they are very frequently mistaken for the very rare and perhaps extinct Passenger Pigeons.

"As you saw, today, their flight is very rapid and usually erratic, that is not in a straight line. Probably, as they were some distance from you, you did not hear the noise of their wings; when several fly by you, you can hear quite a loud humming or whistling noise made by their wings beating the air.

"I have been able to examine a great many nests of Mourning Doves and they all prove that these birds are perhaps the most shiftless house builders of any wild bird that pretends to build any nest at all. The nests are made of twigs, not woven or laced together, but simply laid one on another: and so few twigs are used that you can easily see the eggs through the bottom. Sometimes they are so lazy they even lay their two white eggs on the ground, with no nest at all. I have also found their eggs almost balanced on the top of a fallen tree trunk, in places where a slight jar would cause them to roll off.

"The little birds remain in the nest longer than most other young birds,—about three weeks; they are first covered with white down, then by stiff pinfeathers that make them look like little hedgehogs; when they first fly, they are fully feathered but their clothes are different from their parents as each feather has an edge of white, giving the birds a scaled appearance.

"The song of the Mourning Dove is a sad, plaintive cooing, rather disagreeable when heard continually, but not objectionable when it is heard in company with many other wild bird songs."



From "Water Birds"

RUFFED GROUSE

"Did you ever see a Partridge nest, Uncle George?" asked Dick.

"Yes, I have found a great many nests of the Ruffed Grouse or Partridge, as you called it."

"Jimmie says his father found one in the woods yesterday; it has fourteen eggs in it. The Partridge acted just as the Towhee did when we found her nest; she ran away limping, trailing one wing on the ground and whining just as though she was badly wounded."

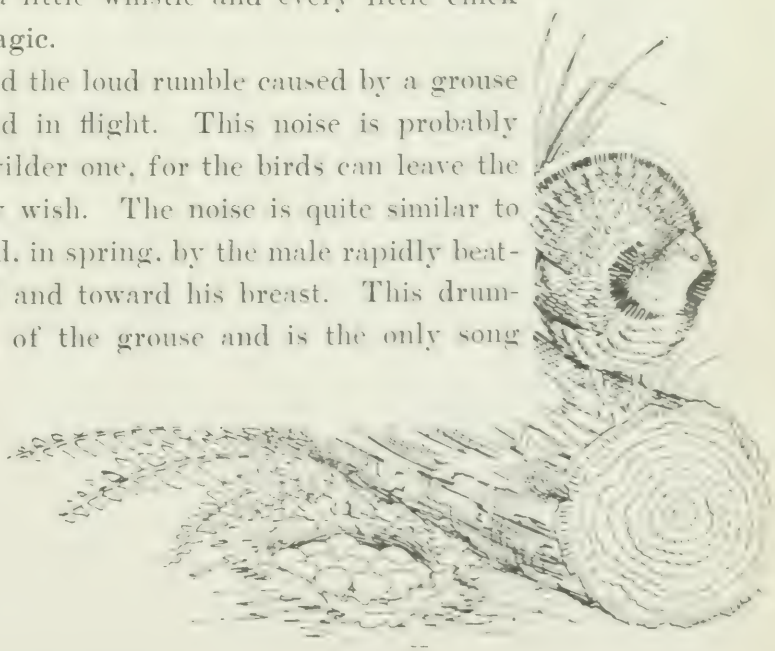
"I think, Dick, that no other bird is as clever as the grouse when it comes to leading enemies away from its nest; but they do not always run away making believe they are lame, for if they think there is a chance that a person or an animal may not see them on the nest, they will sit perfectly still until almost stepped upon, trusting to the similarity between their plumage and the surrounding dead leaves to escape being seen."

"Mother Grouse does not run away because she is afraid but simply to draw your attention away from her home; she is a very brave bird when necessary.

"Little grouse are downy just like little chickens, in fact they look like little Brown-leghorns; they follow their mother about and can run quite fast as soon as they leave the egg shell.

"If you come across Mother Grouse and her family of little ones, she gives them a warning note at which they scamper in different directions and hide under leaves or sticks. If you fail to follow the mother as she limps away, but try to catch some of the little chicks, she will come back, squealing and all bristled up; she may even pick at your hands. She keeps giving her little note of warning and not one of her children will leave his hiding place unless you actually find him. If you go away a short distance and hide, after Mother Grouse has satisfied herself that danger is gone she will give a little whistle and every little chick will appear as if by magic.

"You may have heard the loud rumble caused by a grouse as it leaves the ground in flight. This noise is probably made purposely to bewilder one, for the birds can leave the ground silently if they wish. The noise is quite similar to the drumming produced, in spring, by the male rapidly beating his wings forward and toward his breast. This drumming is the love song of the grouse and is the only song that they have.



From "Water Birds"

BOB-WHITE

"I think I like the Bob-White or Quail better than the Grouse," said Dorothy. We used to hear them whistling every morning last summer, but we have not heard any this year. Where do you suppose they have gone, Uncle George?"

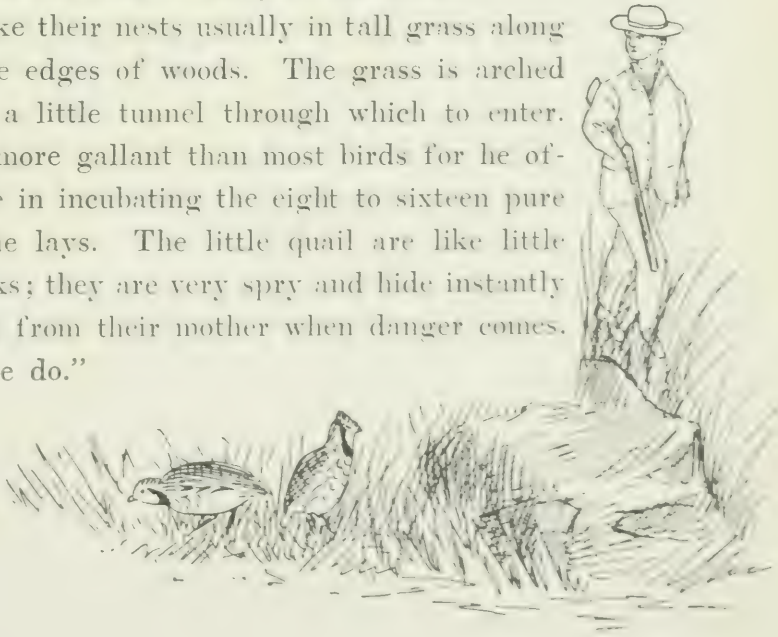
"The Quail in New England, Dorothy, have a very hard time. Their worst enemy is the weather. You see that in winter they go in flocks and they have the habit of diving or burrowing into soft snow and passing the night under it; the snow may change to rain or the surface may melt and then freeze into a solid crust. Often whole flocks are caught under it and die because they are unable to get out. Rains, when the little birds are but a few days old, also destroy a great many of them.

"Foxes and weasels are always on the lookout for quail or any other birds. Men were allowed to shoot quail for sport at certain seasons. The result of all these dangers that await Bob-White at nearly every turn is that we find very few of them left in New England now. They are still

abundant in the Southern States and in the Mississippi Valley. Many attempts have been made to bring birds from these places to re-stock our covers, but the birds, being used to a milder climate, soon pass away.

"The farmer who can not boast of a few pair of quail on his farm is very fortunate. They eat a great many beetles that are very injurious to the crops. Quail are birds of the field, while grouse are birds of the woodland. It is much easier for a hunter to kill the slower flying quail in the open than it is grouse that start from the ground in brush, with a rush, and quickly dodge behind the first tree they come to. Quail need all the protection we can give them; many farmers feed them grain during the winter.—a kindness that saves the lives of many of the birds.

"Bob-Whites make their nests usually in tall grass along walls, fences or the edges of woods. The grass is arched over so they have a little tunnel through which to enter. Mr. Bob-White is more gallant than most birds for he often assists his mate in incubating the eight to sixteen pure white eggs that she lays. The little quail are like little grouse or tiny chicks; they are very spry and hide instantly at a warning cluck from their mother when danger comes, just as little grouse do."



From "Water Birds"

SPOTTED SANDPIPER

"As I was coming home tonight, children, I saw some sandpipers running along the shore of the river. As we have not yet talked about any of the sandpiper family, I thought I would tell a little about them this evening."

"Oh, good!" exclaimed Dorothy. "We sometimes see sandpipers down at the pond, and they look so funny bobbing up and down."

"Bobbing up and down or 'teetering' is a habit of all the sandpipers, Dorothy, but the Spotted Sandpiper does it more than the others and that is probably the kind you have seen at the pond.

"The Spotted Sandpiper is the most common kind in most of the United Sates during the summer months; at this season the breasts of both male and female birds are spotted with brownish-black, but in winter neither the adults nor the young birds have any spots.

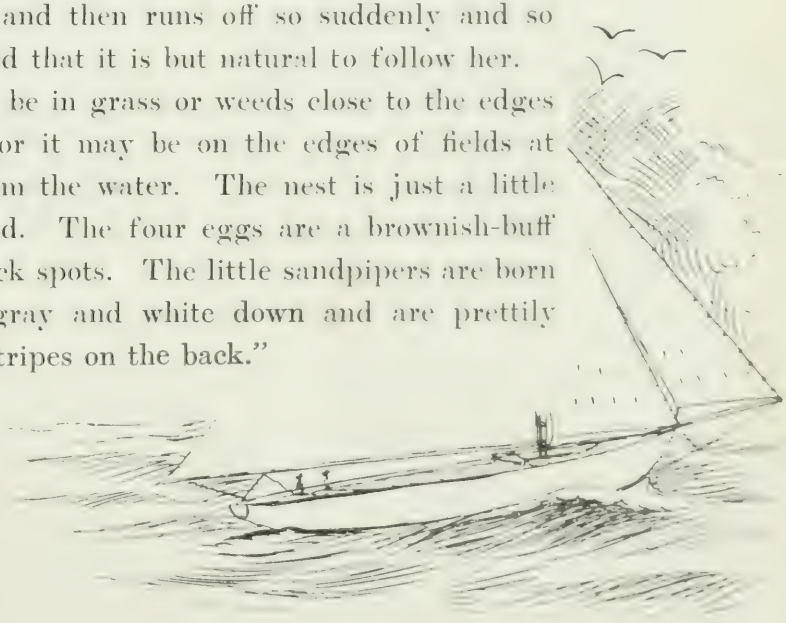
"The flight of Spotted Sandpipers is peculiar and you can easily distinguish them by it: the wings are raised but little, if any, above the back and are brought well under

them at each stroke. They also fly in straight lines or gentle curves, while most other small sandpipers fly in a zig-zag course, continually twisting so as to show first the back, then the breast. This last method of flight is a great protection to the birds; it is a case of 'now you see me,' as the dark upper part of the bird comes against the sky, and 'now you do not' as his white underparts are exposed.

"All the sandpipers are valuable birds; all of them eat insects and the Spotted Sandpiper lives almost wholly on little water insects and those it gets from the fields.

"Just as the quail, grouse and most of the ground birds decoy enemies away from their nest by making believe wounded, so do the sandpipers. The Spotted Sandpiper is very expert at doing this; she remains on the nest until almost stepped upon and then runs off so suddenly and so very plainly wounded that it is but natural to follow her.

"Their nests may be in grass or weeds close to the edges of ponds or rivers or it may be on the edges of fields at quite a distance from the water. The nest is just a little hollow in the ground. The four eggs are a brownish-buff color with sharp black spots. The little sandpipers are born covered with soft gray and white down and are prettily marked with faint stripes on the back."



From "Water Birds"

WOODCOCK

"The Woodcock is another, but very different bird, that belongs to the sandpiper and snipe family. Turn to his picture in your Bird Guide and you will see how different he is from the Spotted Sandpiper."

"Oh!" exclaimed Dorothy. "Isn't he a funny bird,—just the color of dead leaves. Why are his eyes so big and so near the top of his head? And why is his bill so long?"

"His eyes are large, Dorothy, because he does most of his feeding after dark, and they are near the top of his head so that, while he is feeding, he can more readily keep watch for danger.

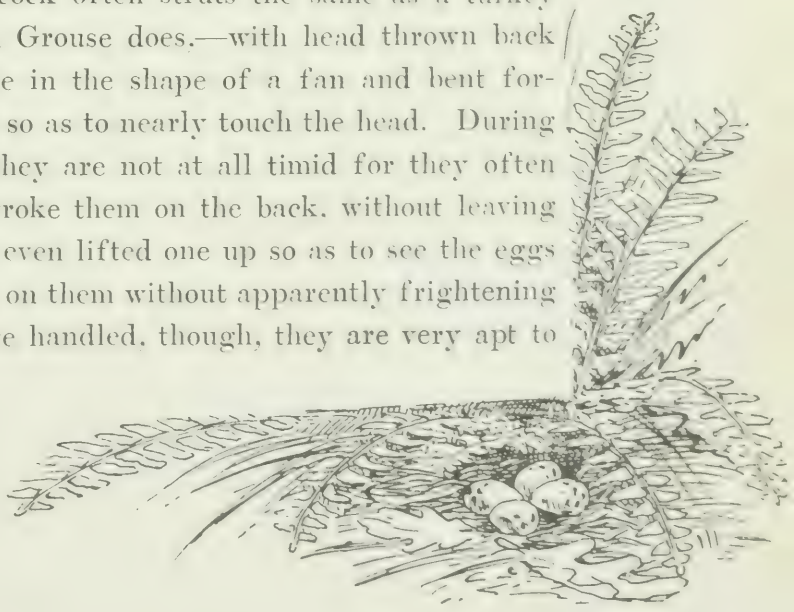
"His bill is long so that he can reach down into the mud and find worms; the tip of it is very sensitive and he can open it so as to grasp a worm when he feels one. His colors are, as you said, dead leaf color; they match perfectly with the ground on which he feeds so that it is very hard to see him.

Alder swamps along the muddy edges of brooks are the places to find Woodcock. They build their nests among the leaves, usually under the shelter of ferns, weeds or low

bushes, along the edges of such swamps. Or rather, they lay their eggs in such places for they really make no nest but lay the four buff, pale-spotted eggs directly on the leaves. The eggs of all birds of the sandpiper family are rounded at one end and pointed at the other; they are always laid so that the points come together in the middle of the nest.

"The Woodcock knows that his colors make it difficult to see him so he does not fly until he is sure that he will be seen. His flight is very swift and in a zig-zag manner so that fortunately it is difficult for most hunters to shoot them. The three outer wing feathers are very narrow and quite stiff; they make a whistling sound as the bird starts his swift flight from the ground.

"The male Woodcock often struts the same as a turkey gobbler or a Ruffed Grouse does,—with head thrown back and tail spread wide in the shape of a fan and bent forwards over the back so as to nearly touch the head. During the nesting season they are not at all timid for they often allow a person to stroke them on the back, without leaving their nests. I have even lifted one up so as to see the eggs and placed her back on them without apparently frightening her. If the eggs are handled, though, they are very apt to leave the nest."



From "Water Birds"

GREAT BLUE HERON

"We have something for you to guess tonight, Uncle George."

"Well, I will try my best, children. what have you seen today?"

"We saw a great big bird," said Dick, "the biggest one you ever saw, or that is, it was the biggest one we ever saw, wasn't it Dorothy?"

"Well, Dick, let us see! The heaviest wild bird I have seen is probably the Swan, and the tallest is probably the Whooping Crane. I am sure you could not have seen either of these. I will guess that it was a Great Blue Heron. Am I right?"

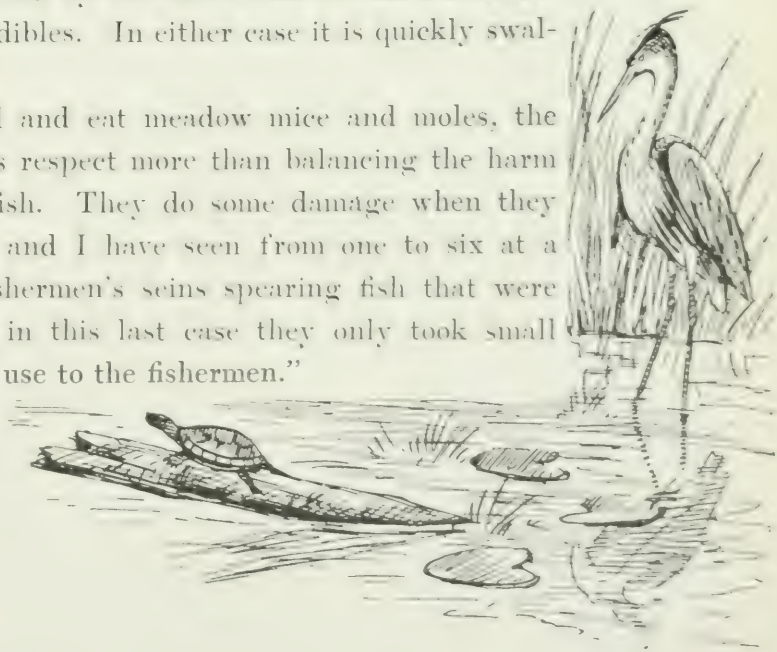
"That is what is was, Uncle. He flew almost over the house. I think he was going down to the mill pond. Dorothy and I watched him as long as he was in sight. He looked grand as he sailed overhead with his great broad wings slowly flapping, his neck doubled so his head almost rested on his shoulders and his long legs trailing behind."

"A flying Great Blue Heron, almost floating across the sky, is a beautiful sight, Dick. All herons fly just as this

one did, but all cranes fly with the neck stretched out at full length in front of them. Of course we do not find any of the cranes in New England, but in the Mississippi Valley and in the South, where they are found, they can easily be distinguished from herons, even at a distance when flying.

"The Blue Heron makes a beautiful picture, too, when he is standing in shallow water fishing,—the clear water making another bird of him, the reflection of course being upside down. In his large, pointed beak, he has a weapon for catching fish or frogs better than the best hook that man can make. He stands perfectly motionless in the water until his prey gets near enough; then his head darts down as though his neck were a coiled spring and the unfortunate creature is either killed by the fierce stab or else seized between the open mandibles. In either case it is quickly swallowed head first.

"Herons also kill and eat meadow mice and moles, the good they do in this respect more than balancing the harm they do in killing fish. They do some damage when they fish in trout ponds and I have seen from one to six at a time standing in fishermen's seins spearing fish that were trapped; of course in this last case they only took small fish that were of no use to the fishermen."



From "Water Birds"

WOOD DUCK

"I will tell you about another water bird, one that I used to see on some of the lakes near here. I am sorry to say that it is quite rare now for the bird I mean is the most beautiful duck in the world, the Wood Duck."

"Here is his picture in our Bird Guide, Dorothy!"

"Isn't he beautiful! Just look at his lovely crest! And see how different his mate is!" exclaimed Dorothy.

"The females of nearly all ducks are duller colored than their mates, Dorothy, probably so they will not show so plainly when they are sitting upon their nests. Still, Mrs. Wood Duck is a very handsome bird, even if her dress cannot compare with that of the male.

"Wood Ducks live around fresh water entirely and they like best, clear lakes surrounded by woods. They usually keep in little lagoons, or inlets, where they are partly hidden by grasses. I have very seldom seen them swimming out in the lakes where they were in plain sight. Some people call the ducks Bridal Ducks because of the beautiful

plumage of the male, and others call them Summer Ducks because they are, or were, found almost everywhere in the United States in summer, while most of the ducks live in summer, north of our boundaries.

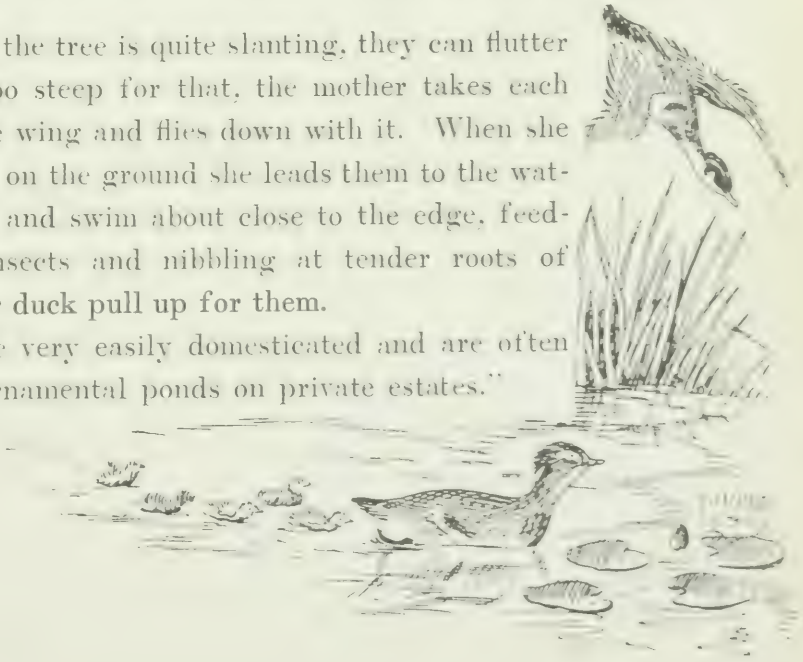
"Wood Ducks nest in holes in trees, usually from three to twenty feet above ground. That is probably one of the reasons they are not as common here as they were, for large trees suitable for them to nest in are getting scarcer every year.

"As almost everyone knows, little ducks are born covered with soft down; they can run and swim but of course they cannot fly for a long time."

"How do they reach the ground when the nest is high up?" asked Dick.

"If the trunk of the tree is quite slanting, they can flutter down it; if it is too steep for that, the mother takes each one, in turn, by the wing and flies down with it. When she has them all safely on the ground she leads them to the water; they plunge in and swim about close to the edge, feeding upon small insects and nibbling at tender roots of grasses that mother duck pull up for them.

"Wood Duck are very easily domesticated and are often seen in parks or ornamental ponds on private estates."



From "Water Birds"

BROWN PELICAN

"Uncle George! Will you tell us tonight of some of the birds you have seen in other parts of the country?"

"All right, children! Let me see,—suppose I tell you about the pelicans in Florida."

"Oh, good!" exclaimed Dorothy, "those are the birds with the big, funny bills." Dick was rapidly turning over the pages of his Bird Book to see just what the pelicans looked like

"Two kinds of pelicans are found in Florida, the White Pelican and the Brown Pelican. The last kind are found in Florida at all times of the year and are the ones I will tell you about. The White Pelicans are larger and their plumage is white all over; they are found in Florida in the winter but spend the summer in the northwestern parts of the United States and Canada.

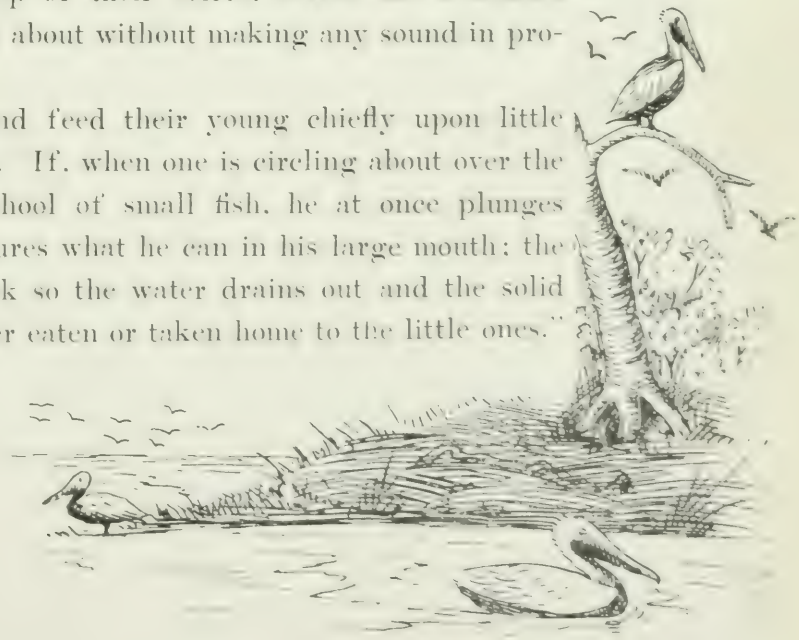
"Brown Pelicans are found in all the Southern States and occasionally one even strays as far north as Maine. There is a small island in the Indian River (Florida) that has always been called Pelican Island because of the large numbers of pelicans that made their homes there. Tourists

travelling down this river used to shoot at and frighten away the pelicans so that fewer and fewer of them nested on the island each year. The Audubon societies put a stop to this by having the island made a government reservation and so protecting the birds from being disturbed. They are now more abundant on this island in the nesting season than ever before.

"Most of their nests are on the ground, but some are located in the few, low trees that remain on the island; the nests, made of sticks, are quite large and hollowed so that the large white eggs will not roll out.

"Young pelicans are quite noisy but the adults make hardly a sound. When anyone visits the island, all the young pelicans that can walk, leave their nest and waddle off, screaming at the top of their voices, before the intruder; but the old birds fly about without making any sound in protest.

"Pelicans live and feed their young chiefly upon little fish that they catch. If, when one is circling about over the water, it sees a school of small fish, he at once plunges after them and secures what he can in his large mouth; the head is thrown back so the water drains out and the solid mass of fish is either eaten or taken home to the little ones."



From "Water Birds"

CORMORANT

"Cormorants are fine fishermen: I think that they really are the best fishermen of all birds. There are a number of kinds of cormorants found in North America, several species living on the Pacific coast and two on the Atlantic. The Double-crested Cormorant is most common from Florida to North Carolina and up the Mississippi Valley to Hudson Bay. The Common Cormorant, the one whose picture Dick is now looking at in his Bird Guide, nests on rocks and cliffs from Maine to Labrador.

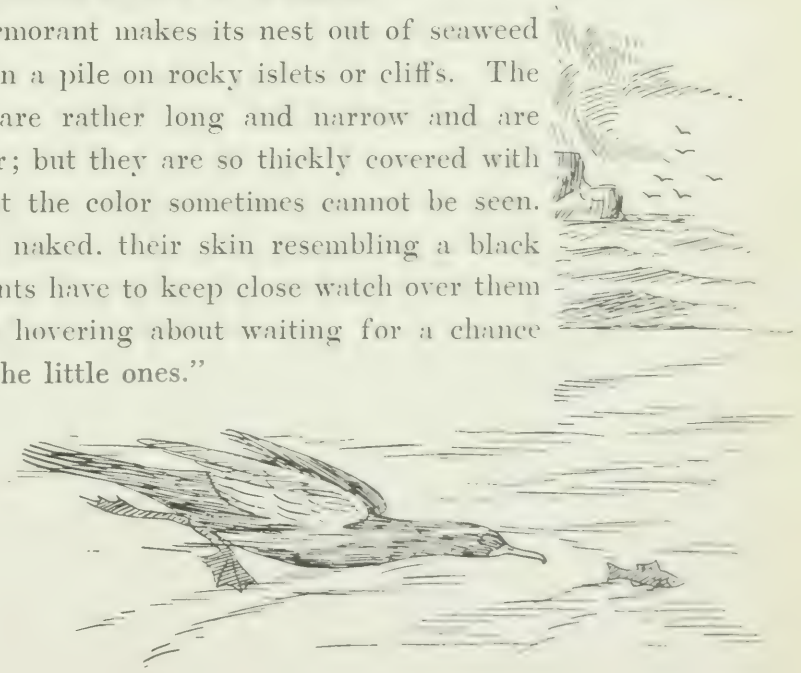
"Let us look at this picture, together, and I will tell you why cormorants are such good fisherbirds. First I will tell you how they catch them. They do not spear them as the heron does, nor do they plunge and seize them as ospreys, the kingfishers and the pelicans do: they dive and pursue the fish under water until they catch them.

"Of course they have to swim very fast to catch fish in this way, but they are shaped just right for speed. See how small the head is and how the long neck tapers into the spindle-shaped body. The tail feathers are very stiff, mak-

ing an excellent rudder. The legs are set well back and all the toes are connected by webs so that he gets great force to propel him forward through the water. In addition, he often uses his wings so as to go faster.—really flies under water. You can also see in the picture that his bill has a hook at the tip, so there is small chance of a fish escaping once he has closed upon it.

"The Chinese used to train cormorants to fish for them. They do so now, but the sport is carried on chiefly to amuse tourists. A ring is placed about the neck of the bird so it cannot swallow the fish, and it dives from the raft or boat of its owner. Soon it will come to the surface with a fish firmly held in its bill and swim back to its master.

"The Common Cormorant makes its nest out of seaweed and rubbish, placed in a pile on rocky islets or cliffs. The three or four eggs are rather long and narrow and are greenish-blue in color; but they are so thickly covered with a chalky deposit that the color sometimes cannot be seen. The young are born naked, their skin resembling a black kid glove. The parents have to keep close watch over them for gulls are always hovering about waiting for a chance to seize and devour the little ones."



From "Water Birds"

COMMON TERN

"Must you really go home tomorrow, Uncle George?" asked Dick one evening.

"Yes, Dick, I must. My work in the city is finished and I have lots of work on hand at home waiting for me."

"That is too bad. But, then, Dorothy and I are going next week to visit grandma in Maine, so we will be able to see some new birds ourselves. What do you think we will see, Uncle?"

"I will tell you this evening about some of the birds you may see; two of them I know you will see a great many of and the third you may find if you look sharp.

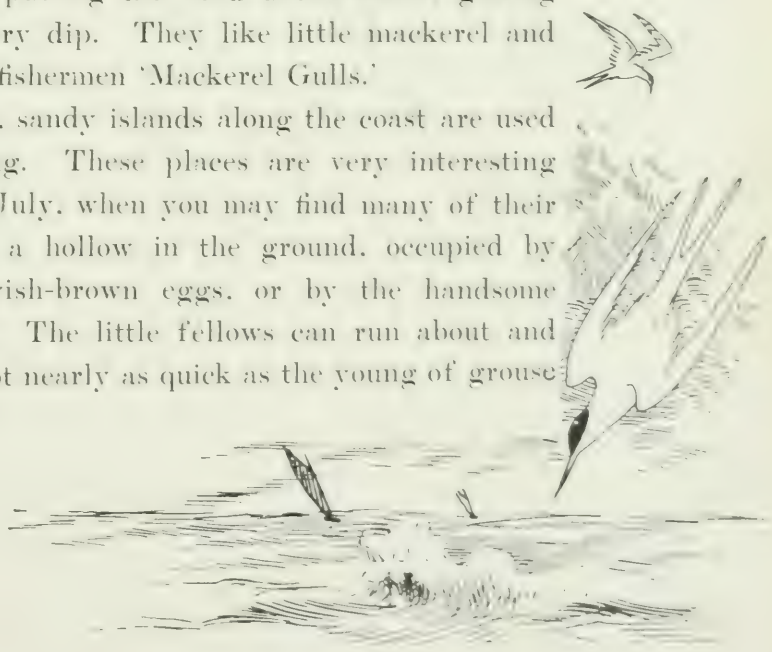
"Among the most beautiful of the birds seen along the New England coast in summer are the terns. They are so graceful and their flight so nearly resembles that of the swallows, that they are often known as 'Sea Swallows.'

"You will probably see two kinds of terns but you will have to look sharp to notice the difference. One, the Arctic Tern has the bill wholly red, while the other, the Common Tern has the outer end of the bill, black.

"You will see many of them coursing up and down the beach or hovering over the water, keeping sharp lookout for little fish. There is nothing more pleasant than to sit on a broad sandy beach, away from all signs of houses, and listen to the surf rolling in and to the wild cries of the terns. Theirs is a very peculiar note,—a purring, vibrant, twanging 'tee-arr-r-r'; a rather pleasing sound that goes well with the surroundings.

"You will notice that terns nearly always fly with their bill pointed straight down. Sometimes they fold their wings and dive down, going entirely under water after little fish, but usually they follow a school near the surface and keep darting down, just putting the head under water, getting a fish at almost every dip. They like little mackerel and are often called by fishermen 'Mackerel Gulls.'

"Most of the low, sandy islands along the coast are used by them for nesting. These places are very interesting to visit in June or July, when you may find many of their nests, usually just a hollow in the ground, occupied by three spotted, grayish-brown eggs, or by the handsome downy, tern-chicks. The little fellows can run about and can swim, but are not nearly as quick as the young of grouse or quail."



From "Water Birds"

HERRING GULL

"The Herring Gull is one of the largest of the gulls and is the one that you will find very abundant everywhere along the Maine coast in summer. In winter, many of them may be seen in all the harbors from Maine to Georgia; they fly about the wharves and follow vessels picking up any refuse that may be thrown overboard.

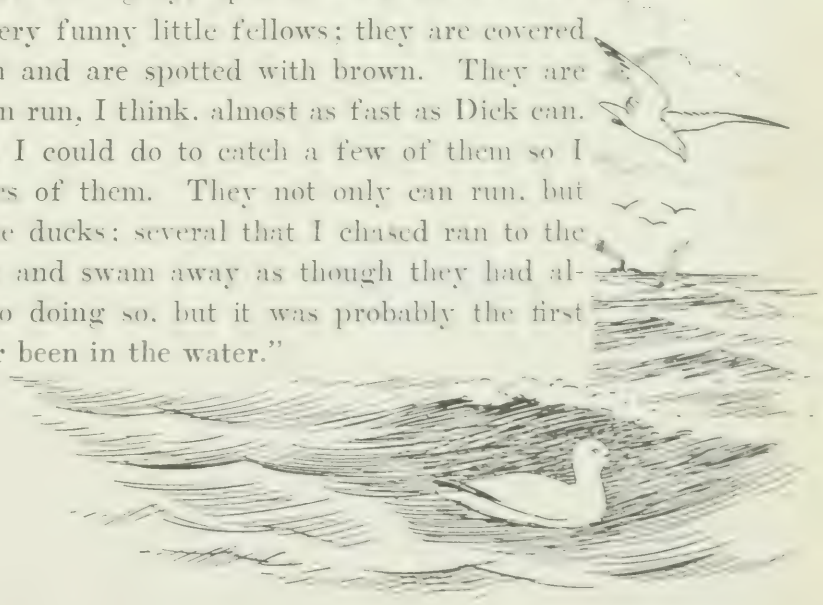
"They are always hungry and will eat almost anything. All the gulls have a great liking for eggs or young of any of the sea birds, so all of these have to keep very close watch to prevent their homes being robbed; gulls even rob each others nests when they find them unguarded.

"When you see gulls and terns, you want to notice particularly the following differences between them: Gulls have strong, almost hooked bills while those of terns are sharply pointed. Gulls have the tails square at the end (except one species), while the tails of most terns are forked. Gulls fly most often with the bill carried horizontally in front of them, while terns usually have theirs pointed down towards the water. Gulls commonly float on the sur-

face of the water, while terns very rarely do. Terns get their food by diving, sometimes going entirely under water, while gulls never do. Gulls are gourmands and will eat most anything, usually refuse or dead fish floating on the water, while terns eat only living little fish, insects or small shellfish.

"I have been to Duck Island, not far from where you are going, Dick, several times just to study the gulls, petrels and guillemots that nest there. There are several thousand pairs of gulls on this island and, as each one screams its loudest when you are in their nesting grounds, you can imagine what a noise there is: it reminds me most of several thousand hens, each trying to cackle louder than the other.

"Some of the gulls make nests of seaweed and sticks, while others just lay their eggs in hollows on the ground: the three eggs are olive-gray, spotted with black. The young gulls are very funny little fellows; they are covered with a gray down and are spotted with brown. They are very lively and can run, I think, almost as fast as Dick can. I know I had all I could do to catch a few of them so I could take pictures of them. They not only can run, but they can swim like ducks: several that I chased ran to the water, plunged in and swam away as though they had always been used to doing so, but it was probably the first time they had ever been in the water."



From "Water Birds"

LOON

"Now, children, I have just time to tell you about one more bird; and I will take one that I do not think you have ever seen,—the Loon or Great Northern Diver. You may, perhaps see one, on your vacation, for I believe there is a pretty little lake within about two miles of where you are going.

"Loons are big birds with large heavy bodies and big, strong, sharply-pointed bills. They are very clever fishers, swimming under water the same as cormorants do, using both their wings and powerful feet.

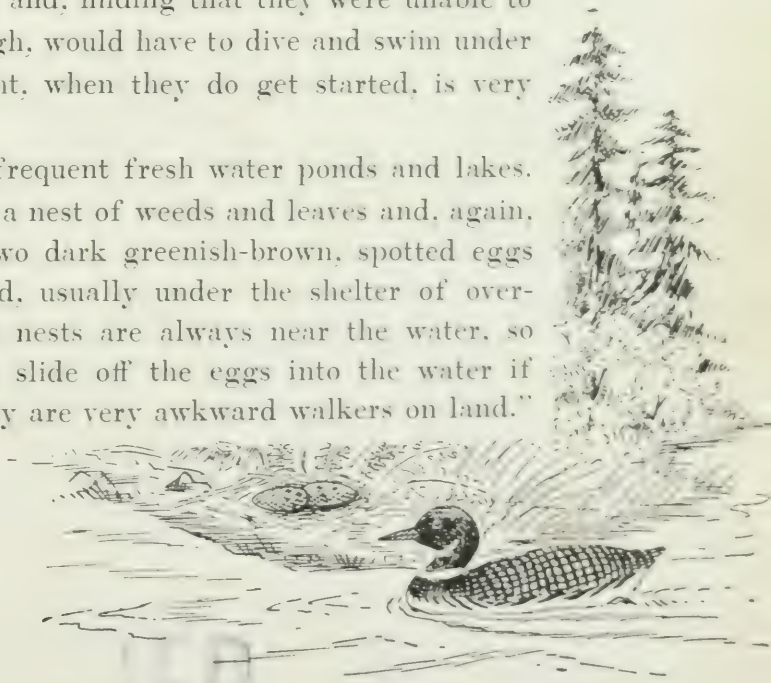
"You can see from the picture how beautifully they are marked with black and white in summer; in winter they are just plain gray above and white below.

"We sometimes hear some disrespectful person say that someone is as 'crazy as a loon' or 'loony.' Both these expressions get their origin from the peculiar actions of the males in spring when they are trying to win the love of some of the opposite sex. I have never seen this performance, but it is said by several, who claim to have witnessed it, that the males line up at one end of the pond and appar-

ently at a given signal all start running and partly flying along the water to the other end. As they rush by the admiring maiden loons, each male cries out his loud, laughing 'wah-hoo-o-o-o.' It surely would be called a 'crazy' performance, but it is not more so than the 'love antics' of some other species of birds, especially some of the grouse family, whose eccentric dancing, drumming, booming, pouting, etc. are well known.

"Many loons spend the winter off the Atlantic coast and on lakes and rivers as far north as the water remains open. While crossing Chesapeake Bay, I have seen hundreds of them leaving the water in front of the boat. Their wings are small so they have to run along the water some distance before they get speed enough to rise into the air. Some of them would try to fly and, finding that they were unable to get started soon enough, would have to dive and swim under the boat. Their flight, when they do get started, is very swift.

"In summer, they frequent fresh water ponds and lakes. Sometimes they make a nest of weeds and leaves and, again, they just lay their two dark greenish-brown, spotted eggs upon the bare ground, usually under the shelter of overhanging brush. The nests are always near the water, so the bird can at once slide off the eggs into the water if danger comes, for they are very awkward walkers on land."



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Blackbird, Red-winged 48

The Red-winged Blackbird, or one of its six very similar subspecies, is found throughout North America; it winters in the Gulf States. It arrives in the northern states about March 1st, and leaves the last of October. It is 9 1-2 in. in length.

Bluebird 18

North America east of the Rockies, spending the summer in northern United States and southern Canada and wintering in the southern half of the United States. Length 7 in.

Bob-White; Quail 78

Resident in the United States east of the Rocky Mountains. A very useful bird, eating quantities of hard-shelled beetles not touched by other species. Length 10 in.

Catbird 26

Breeds throughout the United States and southern Canada, except the Pacific coast states. Winters in the Gulf States. Length nearly 9 in. Arrives in the northern states about May 1st.

Chickadee 20
Very common, breeding from Pennsylvania and Illinois north to Labrador; migrates but a short distance from its breeding grounds. Length 5 1-4 in.

Cormorant 90
The Common Cormorant breeds on the Atlantic coast from Maine to Labrador and winters south to the Carolinas. The Double-crested Cormorant breeds from Minnesota and Dakota northwards and winters in the southern states. Length from 30 in. to 3 feet.

Cowbird 50
Common in eastern North America, breeding from the Gulf of Mexico north to New Brunswick and Hudson Bay; winters in the southern half of the United States. Length nearly 8 in.

Cuckoo, Black-billed 66
Eastern North American, breeding north to Labrador. Winters south of the United States to northern South America. Length 11 3-4 in. Arrives in northern states about May 15th.

Dove, Mourning 74
Breeds throughout the United States and southern Canada. Winters in the southern half of the United States. Length nearly 12 in.

Duck, Wood 86
Breeds locally from Florida to Labrador and British Columbia. Winters from New Jersey and British Columbia southwards. Length 18 1-2 in.

Goldfinch 44

Abundant resident in the United States and southern Canada, congregating in flocks in winter. Length 5 1-4 in.

Grouse, Ruffed 76

Common and resident throughout the United States and southern Canada. Length 17 in.

Gull, Herring 94

Breeds from Maine, the Great Lakes and British Columbia northwards; winters south to the Gulf of Mexico. Length 24 in.

Hawk, Sparrow 72

Eastern North America, breeding from the Gulf States to Hudson Bay and Labrador. Winters from New Jersey and Missouri southwards. Length 10 1-2 in.

Heron, Blue 84

Whole of North America south of the Arctic regions, breeding throughout the range. Winters in the southern half of the United States. Length 45 in.

Hummingbird, Ruby-throated 60

Breeds in eastern North America from Florida to Labrador. Winters from Mexico to northern South America. Arrives in the northern states about May 15th. Length 3 1-2 in.

Jay, Blue 56

Common throughout eastern North America. Resident except in the very northern parts of its range. Length 11 3-4 in.

Junco, Slate-colored 40

Eastern North America, breeding from northern New England and Minnesota northward. Winters throughout the United States. Length 6 1-4 in.

Kingbird 54

Whole of temperate North America, breeding from the Gulf north to New Brunswick, Manitoba and British Columbia. Winters in Cuba, Mexico and Central America. Arrives in the northern states about May 5th. Length 8 1-2 in.

Kingfisher 64

Breeds from the Gulf of Mexico north to the Arctic regions. Winters in the southern half of the United States. Arrives in the northern states about March 20th. Length 13 in.

Loon; Great Northern Diver 96

Breeds from the northern edge of the United States north to the Arctic Circle. Winters in the southern half of the United States and farther north on the seacoasts. Length 27 in.

Nighthawk 62

Breeds from the Gulf coast to Labrador and British Columbia. Winters south of the United States. Arrives in the northern states about the last of April. Length 10 in.

Nuthatch, White-breasted 22

Breeds and is resident from the Gulf States to southern Canada. Length 6 in.

Oriole, Baltimore 46

Breeds from Florida north to New Brunswick and Hudson Bay. Winters in Central and South America. Arrives in the northern states last of April. Length 7 1-2 in.

Osprey; Fish Hawk 70

Whole of America, breeding from the Gulf to the Arctic Circle. Winters in the southern half of the United States. Length 23 in.

Owl, Barred 68

Eastern North America from Gulf of Mexico north to Nova Scotia and Manitoba. Resident except in the northern portion of its range. Length 20 in.

Pelican, Brown 88

Resident and breeds in the Gulf States. Often strays to northern United States. Length 50 in.

Pewee, Wood 52

Eastern North America, breeding from the Gulf States north to Manitoba and Nova Scotia. Winters in Central America. Arrives in the Northern states about May 15th. Length 6 1-2 in.

Redstart 28

Breeds from North Carolina and Kansas north to Labrador and Alaska. Winters in the West Indies, Central and South America. Arrives in the northern states May 1st. Length 5 1-2 in.

Sandpiper, Spotted 80

Breeds throughout the United States and the southern half of Canada. Winters from the Gulf States southward. Arrives in the northern states the last week in April. Length 7 1-2 in.

Shrike, Northern 32

North America, breeding from Labrador to Alaska. Winters south to Virginia, Kansas and California. Length 10 1-4 in.

Sparrow, Chipping 42

Very common summer resident, breeding from the Gulf States north to Newfoundland and Hudson Bay. Winters in the Gulf States. Arrives in the northern states about April 10th. Length 5 1-4 in.

Swallow, Barn 34

Common. Breeds from the Gulf States to the Arctic Circle. Winters in northern South America. Arrives in the northern states about the last week in April. Length 7 1-2 in.

Tanager, Scarlet 36

Eastern United States, breeding in the northern half and also southern Canada. Winters in Central and South America. Arrives in the northern states about May 10th. Length 7 1-2 in.

Tern, Common 92

Breeds from the Gulf States to the Arctic Circle. Winters south of the United States. Length 15 in.

Towhee; Chewink 38

Eastern United States, breeding from Georgia north to Maine and Manitoba. Winters in the southern half of the United States. Arrives in the northern states the last week in April. Length 8 in.

Warbler, Black-throated Green 30

Eastern North America, breeding from Connecticut and Illinois north to Nova Scotia and Hudson Bay. Winters in Central America. Arrives in the northern states the last week in April. Length 5 in.

Woodcock 82

Eastern North America, breeding from the Gulf to Labrador and Manitoba and wintering in the southern states. Length 11 in.

Woodpecker, Downy 58

Common resident in eastern North America. Migrates only from the extreme northern parts of its range. Length 6 in.

Wren, House 24

Eastern North America, breeding north to Maine and Manitoba. Winters in the southern states. Arrives in northern states the last of April. Length 4 3-4 in.

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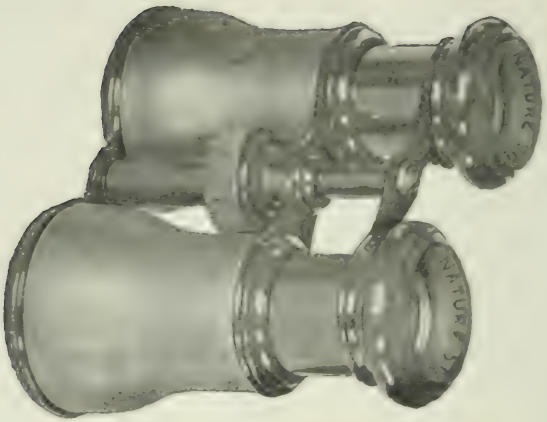

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